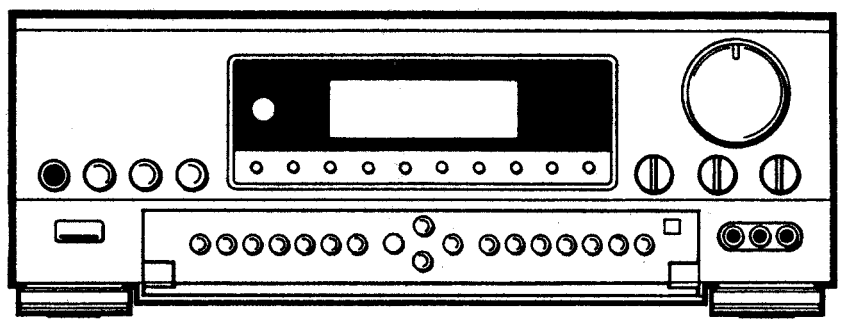
AKAI SERVICE MANUAL



AUDIO/VIDEO RECEIVER

AA-V12DPL

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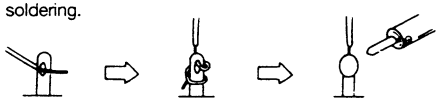
SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ (*)symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples:RF converters, tuner units, antenna selection switches, RF cables, noise-blocking capacitors, noise-blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulating Tape
   2) PVC tubing
   3) Spacers(insulating barriers)
   4) Insulating sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check if replaced wires do not contact sharply edged or pointed parts.
8. Also check areas surrounding repaired parts.
9. Make sure that foreign objects (screws, solder droplets, etc,) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can. Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to check if exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15μF capacitor, under the unit's normal working condition.
The leakage-current should be less than 0.5mA rms AC.
The resistance measurement should be done between accesible exposed metal parts and power cord plug prongs with the power switch "ON"(if included). The resistance should be more than 2.2Mohms.

SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbol	Prinncipal Destination
A	USA
B	UK
E	Europe(except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

SPECIFICATIONS

[AA-V12 DPL]

Power output
Front
- Bypass ..... 80W+80W (THD 0.1%)
- Surround ..... 50W+50W (THD 0.5%)

Rear ..... 12.5W+12.5W (THD 0.8%)
Center ..... 50W (THD 0.5%)
Total Harmonic Distortion
Front
- Bypass 0.1%
- Surround 0.5%

Rear 0.8%
Center 0.5%
Frequency Response ..... 10Hz-60KHz(Bypass)
S/N Ratio 85dB
Input Sensitivity(Bypass)
AUDIO
- Phono 3mV
- CD, TUNER, TAPE/DAT, VIDEO1, 2 ..... 200mV

VIDEO
- VIDEO1, 2 ..... 1Vp-p

Tone Control
- BASS ..... ±10dB
- TREBLE ..... ±10dB

Power Source ..... AC 230V, 50Hz
Dimension ..... 420(W)×150(H)×350(D)mm
Weight 12.2Kg
Power Consumption 150W

Frequency range
- FM ..... 87.5-108.0MHz (50KHz steps)
- MW ..... 522-1620KHz (9KHz steps)
- LW ..... 146-290KHz (1KHz steps)

Sensitivity(DIN)
- FM 2.0μV
- MW 1mV
- LW 3mV

Signal-to-noise ratio (IHF A Network)
- FM mono 70dB
- FM stereo 65dB
- MW 50dB
- LW 40dB

FM T.H.D
- Mono 0.3%
- Stereo 0.5%

Frequency response
- FM 20Hz-15KHz
- MW 100Hz-2KHz

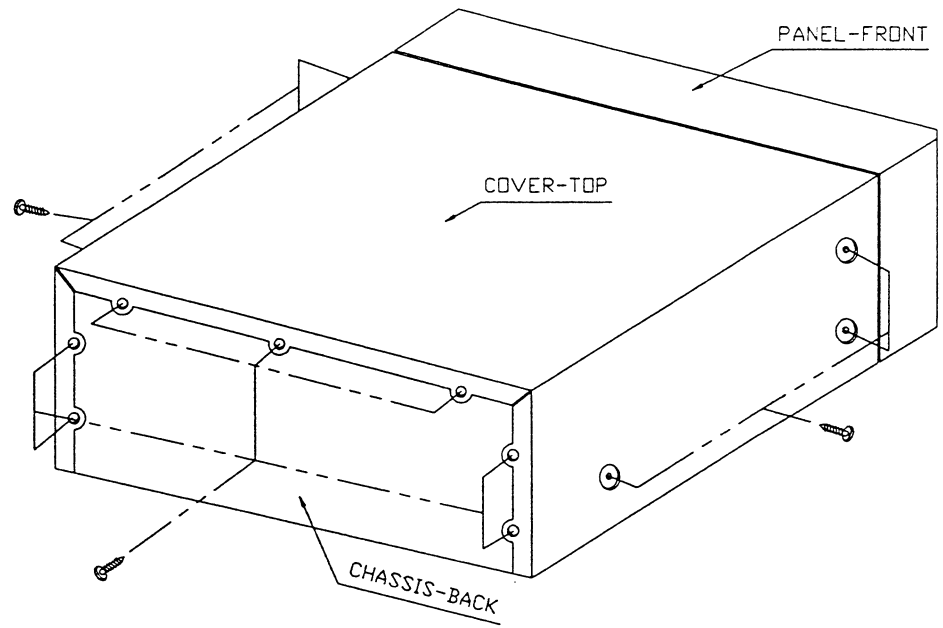
Selectivity
- FM 60dB
- MW 15dB

Stereo separation ..... 40dB(1KHz)

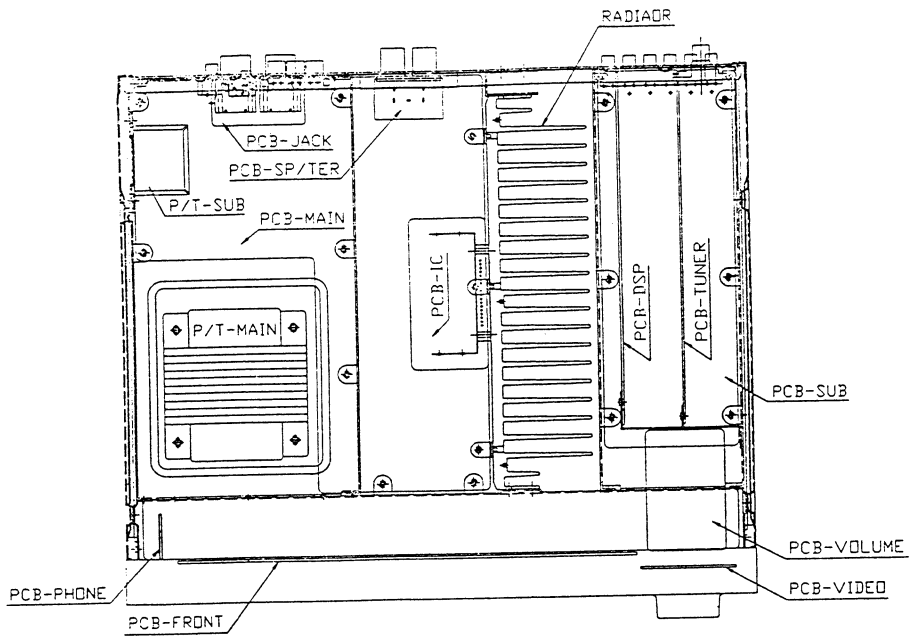
* For improvement purposes, specifications and design are subject to change without notice.

I. DISASSEMBLY

1. REMOVAL OF COVER-TOP



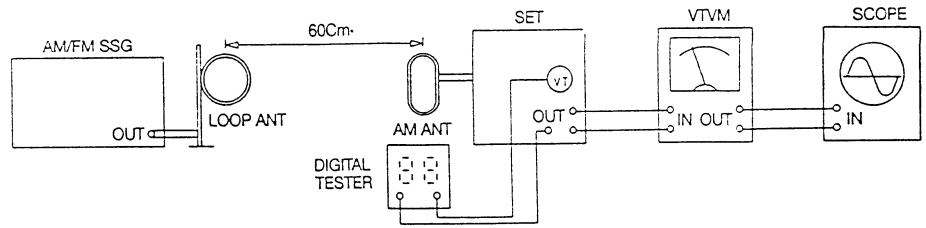
II. PRINCIPAL PARTS LOCATIONS



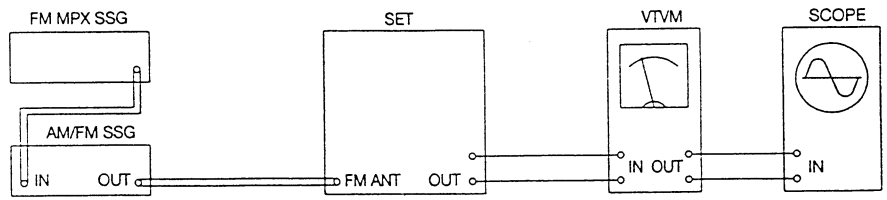
III. ADJUSTMENT

1. TUNER INSTRUMENT CONNECTIONS

1) MW & LW COVER/TRACKING



2) FM TRACKING/MPX



2. TUNER/SURROUND ELECTRICAL ADJUSTMENT

STEP	ADJUSTMENT ITEM
1.	SSG FREQ. & OUTPUT LEVEL
2.	SET Tuning FREQ.
3.	ADJ. Part
4.	REMARKS(●) & RESULT(∗)

Test Point Adjustment Part

AM

NOTE: Set the S.S.G to 400Hz 30% modulation on each adjustment.

1 AM(MW) SENSITIVITY
1. 522KHz(Low), 60dBμ
2. 522KHz(Low), PRESET 6ch
3. T103
4. ● Connect the digital DC voltmeter to TAPE/DAT REC OUT
   ∗ Tuning voltage: 1.2V

2' AM(MW) SENSITIVITY
1. 603KHz, 60dBμ (LOW)
2. 603KHz(LOW), PRESET 7ch
3. T101 (LOW)
4. ● Connect the AC Milli-VOLTMETER to TAPE/DAT REC OUT
   ∗ Maximum output level.
   ∗ For best result, repeat adjustment several times.

3 AM(MW) SENSITIVITY
1. 1404KHz, 60dBμ (HIGH)
2. 1404KHz(HIGH), PRESET 9ch
3. TC101 (HIGH)
4. ● Connect the AC milli-voltmeter to TAPE/DAT REC OUT
   ∗ Maximum output level
   ∗ For best result, repeat adjustment several times.

4 AM IF
1. 990KHz, 60dBμ
2. 990KHz, PRESET 8ch
3. T105
4. ● Connect the distortion meter to TAPE/DAT REC OUT
   ∗ MINIMUM DISTORTION

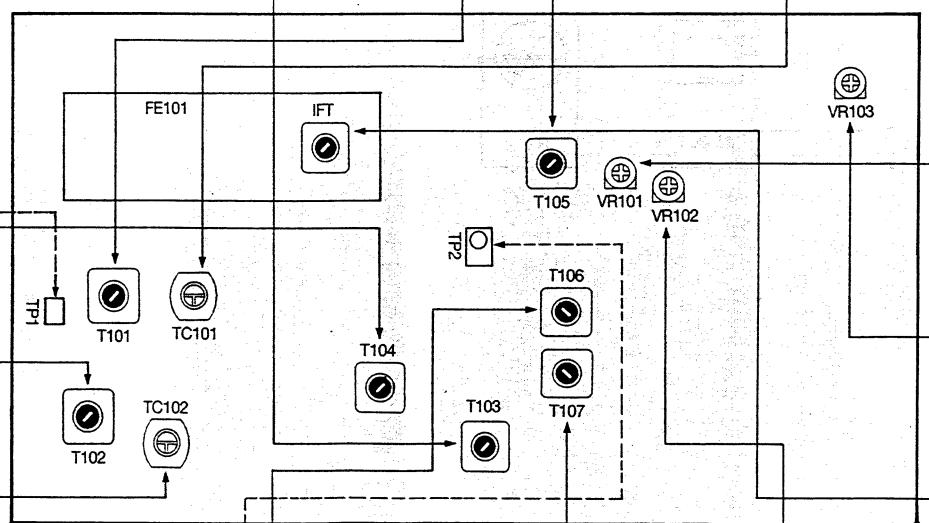
LW

NOTE: 1. Set the S.S.G to 400Hz 30% modulation on each adjustment.

1 LW OSC
TUNING VOLTAG
1. 146KHz(Low), 60dBμ
2. 146KHz(Low), PRESET 11CH
3. T104, TP1
4. ● Connect the digital DC voltmeter to TAPE/DAT REC OUT
   ∗ Tuning voltage: 1.2V

2 LW SENSITIVITY
1. LOW-164KHz, 70dBμ
2. LOW-164KHz PRESET 12ch
3. T102(LOW)
4. ● Connect the milli-voltmeter to TAPE/DAT REC OUT
   ∗ Maximum output level.
   ∗ For best result, repeat adjustment several times.

3 LW SENSITIVITY
1. HIGH-263KHz, 70dBμ
2. HIGH-263KHz PRESET 14ch
3. TC102(HIGH)
4. ● Connect the AC Milli-VOLTMETER to TAPE/DAT REC OUT
   ∗ Maximum output level.
   ∗ For best result, repeat adjustment several times.



5 TUNING INDICATOR
1. 990KHz, 60dBμ
2. 990KHz
3. TUNED Indicator on the front pannel, VR101
4. ∗ TUNED Indicator is lit.

5 STEREO SEPARATION
1. 98.0MHz, 60dBμ (STEREO L or R channel only)
2. 98.0MHz PRESET 3CH
3. VR103
4. ● Connect the AC Milli-VOLTMETER to TAPE/DAT REC OUT
   ∗ Minimum output level for opposite channel.

FM

1 CENTER VOLTAGE
1. 98.0MHz, 60dBμ (MONO)
2. 98.0MHz PRESET 3ch
3. TP2, T106
4. ● Connect the DC Digital Voltmeter between TP2.
   ∗ 0 ± 50mV

2 DISTORTION (MONO)
1. 98.0MHz, 60dBμ (MONO)
2. 98.0MHz
3. T107
4. ● Connect the Distortion meter to TAPE/DAT REC OUT
   ∗ MINIMUM DISTORTION

3 TUNING INDICATOR
1. 98.0MHz, 15dBμ (MONO)
2. 98.0MHz
3. TUNED Indicator on front pannel, VR102
4. ∗ TUNED Indicator is lit.

4 DISTORTION(STEREO)
1. 98.0MHz, 60dBμ (STEREO L or R channel only)
2. 98.0MHz
3. IFT (FRONT END)
4. ● Connect the distortion meter to TAPE/DAT REC OUT
   ∗ Minimum Distortion

3. REAR NOISE LEVEL ADJUSTMENT

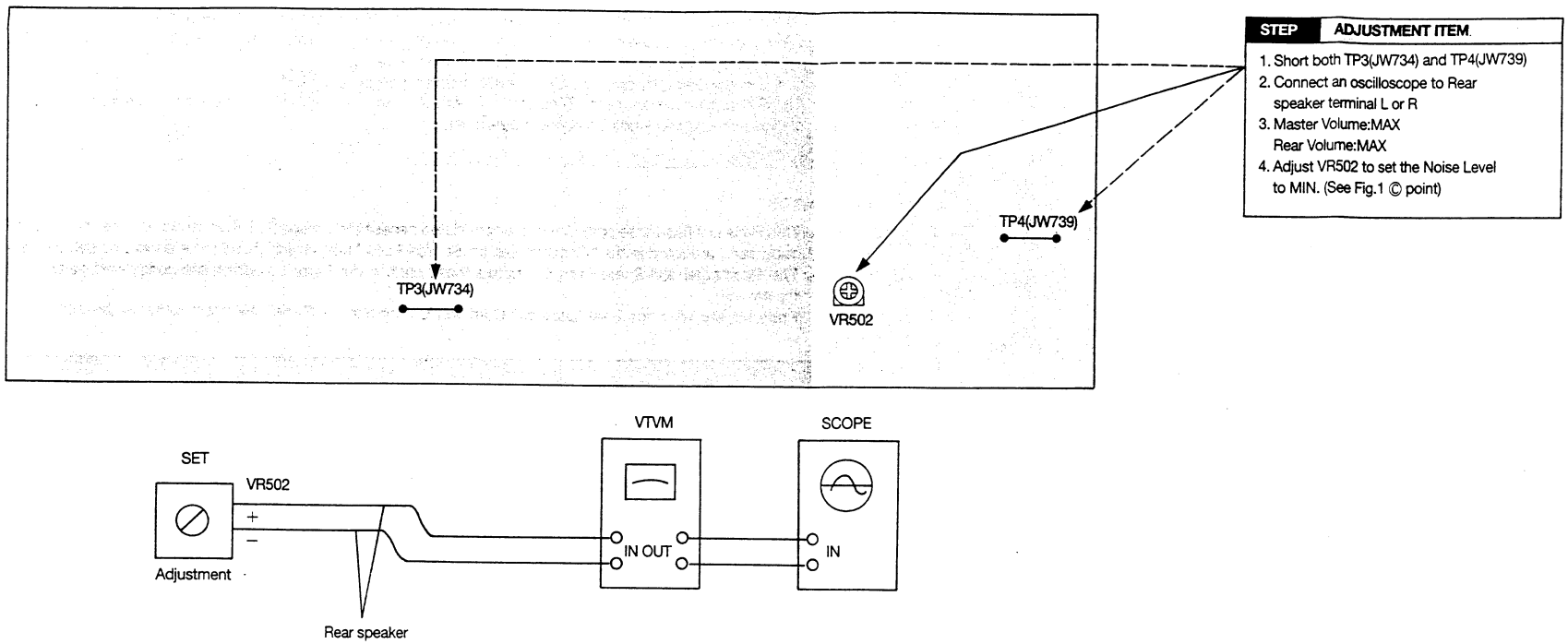


Fig.1

IV. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No, Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

[NOTE]

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.

WARNING

▲(*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

▲(*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. RECOMMENDED SPARE PARTS

Ref. No.	Part No.	Description
1	* ACAC-00063-000	CORD-AC ASS'Y KKP-419C, YH396-03A, YT396
2	BTCE-00152-107	FILTER-CERAMIC SFE 10.7MJA10H-A FTZ
3	BTCE-00440-045	FILTER-CERAMIC ACFM3-450BL
4	BTCE-00270-004	FILTER-CERAMIC BFU 450C4N
5	BTCE-00310-004	FILTER-CERAMIC CSB456F11
6	* CACS-S472M-179	CAPACITOR AC DE7100F472M
7	DDMR-00210-T11	DIODE-RECTIFIER 1N5402S (200V 3A) DO-20 M
8	DDTR-00040-T10	DIODE-RECTIFIER 1N4004 (400V 1A) DO-41 T
9	DDTZ-G062B-SO0	DIODE ZENER MTZ6.2B 5.96-6.27 DO40 T
10	DDTZ-G120B-SO0	DIODE ZENER MTZ12B 11.44-12.03 DO40 T
11	DDTZ-G150C-SO0	DIODE ZENER MTZ15C 14.35-15.09 DO40 T
12	DDTZ-G180C-SO0	DIODE ZENER MTZ18C 17.42-18.33 DO40 T
13	DD4B-00210-TX0	DIODE BRIDGE BU8-02 200V 8A BRIDGE
14	DPFL-00360-00Z	DISPLAY-FLUORESCENT CM1360D
15	DPLT-00011-VC5	DOT-LED SLR-54VC3 RED R5 N
16	DDSV-0003B-S30	DIODE-VVC 1SV149B AM 8V DIP2 S
17	DDTZ-G100B-SO0	DIODE ZENER MTZ10B 9.41-9.90 DO40 T
18	DDTZ-G130B-SO0	DIODE ZENER MTZ13B 12.55-13.21 DO40 T
19	* FGFB-S1002-337	FUSE GLASS 1A 250V 5×20 V/S/B T
20	* FGFB-S3152-139	FUSE GLASS 3.15A 250V 5×20 U/V/B T
21	* FGFB-S3152-337	FUSE GLASS 3.15A 250V 5×20 V/S/B T
22	ICCM-20730-S10	CMOS-LSI LC866124A QIP80E
23	ICDG-00560-SO0	IC MOTOR DRIVER BA6208 SIP9
24	ICDG-00610-S10	IC FUNCTION SELECTOR LC7822 DIP30S
25	ICHY-00180-TL0	IC REMOTE RECEIVER KRM-65M
26	ICOP-00131-SE0	IC DUAL OP AMP KA4558C DIP8
27	ICHP-00100-S10	IC HYBRID AMP-POWER STK4192 Ⅱ 50W×2 SIP18
28	ICOP-00130-SE0	IC DUAL OP AMP KA4558S SIP9
29	ICRG-00061-SE0	IC REGULATOR KA7815 15V 3mm TO-220
30	ICRG-00091-SE0	IC REGULATOR KA7806 6V 3mm TO-220
31	ICRG-00251-SE0	IC REGULATOR KA7915 15V 3mm TO-220
32	ICCM-00060-SQ0	IC QUAD SWITCH GD4066B DIP14
33	ICCM-20380-S10	IC PLL LC7218 DIP24S
34	ICCM-20740-S10	CMOS LSI LV1010N DIP24S
35	ICDG-01140-S10	D.P.L. DECORDER LA2785 DIP42S
36	ICLN-00190-S10	IC FM MPX LA3410 DIP16
37	ICLN-01630-S10	IC AM/FM IF LA1267 DIP24
38	IFFA-00110-E20	IFT-FM AFA011 7mm-CAN
39	IFFD-00100-E20	IFT-FM DET AFD010 7mm-CAN
40	KTAL-00101-003	CRYSTAL KDSIF 32.768KHz-20P
41	KTRE-00210-120	RESONATOR CST 12.0MTW-TF01
42	KIBK-00050-E40	COIL-AUDIO CHOCK ABK005 2.2μH
43	IFAA-00250-E20	AM IFT AAA-025
44	KIAO-00240-E20	COIL-AM OSC AAO024 MW 7mm-CAN
45	KIAT-00351-E20	COIL-AM ANT AAT035-1 MW 10mm-CAN
46	KIFK-00050-E40	COIL-FM CHOKE AFK-005 2.2μH K
47	KIML-00020-E20	COIL-FM MPX FILTER AMA002 19KHz 7mm-CAN
48	KIOT-3101K-002	COIL-INDUCTOR 100μH K LA 30 T L 04
49	KIOT-4101K-003	COIL-INDUCTOR 100μH K LA 40 T L 02
50	KTAL-00041-072	CRYSTAL HC-49/U 7.200000MHz
51	KTRE-00220-080	RESONATOR CST8.00MTW-TF01
52	* PTAP-02450-Y1V	TRANSFORMER-POWER A96-245Y-V 230V/50Hz
53	* PTAD-02380-Y1V	TRANSFORMER-POWER A41-238Y-V 230V/50Hz
54	* RFUM-G150J-130	RESISTOR-FUSIBLE 15ohm 1/2W 5% M
55	* RFUZ-F100G-001	RESISTOR-FUSIBLE 10ohm 1/4W G ERD2FCG100P
56	RMOH-H100J-030	RESISTOR-METAL OXIDE 10ohm 1W 5% H
57	RMOH-H3R3J-030	RESISTOR-METAL OXIDE 3.3ohm 1W 5% H
58	RMOH-J220J-040	RESISTOR-METAL OXIDE 22ohm 2W 5% H
59	RMOH-J222J-040	RESISTOR-METAL OXIDE 2.2Kohm 2W 5% J
60	RMOH-J390J-040	RESISTOR-METAL OXIDE 39ohm 2W 1% H

Ref. No.	Part No.	Description
61	RMOH-J471J-040	RESISTOR-METAL OXIDE 470ohm 2W 5% H
62	RMOH-KR22J-040	RESISTOR-METAL OXIDE 0.22ohm 3W 5% H
63	SKAO-00130-4CV	AC OUT LET YKE31-0090 4.0PI 250V 2.5A
64	SKPH-00293-66W	SOCKET-PHONE HTJ064 05BG GOLD
65	SKRC-00150-020	SOCKET-RCA LGA6502-0150 2P
66	SKRC-00280-020	SOCKET-RCA JK0200900N 2P
67	SKRC-00310-060	SOCKET-RCA JK0600920N 6P
68	SKRC-00380-031	SOCKET-RCA JK0300081G
69	SKRC-00420-061	SOCKET-RCA JK0600460N
70	SWTA-00230-06V	SWITCH-TACT SKHH17910A 12V 50mA W/GND
71	TESP-00220-06P	TERMINAL SPEAKER P40620701P
72	TESP-00241-04S	TERMINAL SPEAKER SH041037CN(4P)
73	TRSA-0013Y-SD0	TRANSISTOR P-H FREQ KTA1024-Y TO92L
74	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ KTA1266-Y TO92
75	TRTA-0011G-SD0	TRANSISTOR P-H FREQ KTA1268-GR TO92
76	TRTA-0040Y-SOS	TRANSISTOR P-H FREQ DTA114Y-S W/RESIST TO92M
77	TRTA-00700-SD0	TRANSISTOR P-H FREQ KTA1659-O TO-220IS
78	TRTA-0090Y-SJ0	TRANSISTOR P-H FREQ 2SA1695-Y TO3P
79	TRTC-0015G-SD0	TRANSISTOR N-H FREQ KTC3200-GR TO92
80	TRTC-0016G-SD0	TRANSISTOR N-H FREQ KTC3198-GR TO92
81	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ KTC3198-Y TO92
82	TRTC-00710-SD0	TRANSISTOR N-H FREQ KTC4370-O TO-220IS
83	TRTC-0087Y-SD0	TRANSISTOR N-H FREQ KTC3206-Y TO92L
84	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ 2SC4468-Y TO3P
85	TRTD-00200-SD0	TRANSISTOR N-L FREQ KTD-1302 TO92
86	TEAT-00051-03R	TERMINAL ANTENNA AK 1/2-1058A
87	TRSK-0001G-S30	FET N-CHANNEL 2SK246-GR TO92
88	TRTA-0008G-SD0	TRANSISTOR P-H FREQ KTA1266-GR TO92
89	TRTC-0010Y-SD0	TRANSISTOR N-H FREQ KTC1923-Y TO92
90	TRTC-0034Y-SOS	TRANSISTOR N-H FREQ DTC114Y-S TO92
91	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ KTC3205-Y TO92L
92	TRTK-0003G-SD0	FET N-CHANNEL KTK161-GR TO92M
93	TUFF-00160-00D	FRONT-END FTH4-560V FTZ
94	VRAE-M037W-104	VR-ROTARY RK11K1160205(14W)-100KW
95	VRBE-M036C-104	VR-ROTARY RK14K1260205(14C) 100KC×2
96	VWDD-E002B-503	VR-W/MOTOR EUZ-MR4F20B54
97	VFEB-A001B-204	RESISTOR-SEMI FIXED EVN DXA A03 B25 200Kohm
98	VFEB-A001B-222	RESISTOR-SEMI FIXED EVN DXA A03 BE3 2.2Kohm
99	VFEB-A001B-223	RESISTOR-SEMI FIXED EVN DXA A03 BE4 22Kohm
100	VFEB-A001B-472	RESISTOR-SEMI FIXED EVN DXA A03 BQ3 4.7Kohm

2. ASS'Y MECHANISM

Ref. No.	Part No.	Description
	ANTL-00060-E50	ANTENNA-LOOP AAN-007 19.5μH 7T 125×93
	ANTW-00020-202	ANTENNA-WIRE AFN-002 1007#24-2000mm
F801	* FGFB-S1002-337	FUSE GLASS
F802		1A 250V 5×20 V/S/B T
F806		
F803	* FGFB-S3152-337	FUSE GLASS
F804		3.15A 250V 5×20 V/S/B T
F805	* FGFB-S3152-139	FUSE GLASS
		3.15A 250V 5×20 U/V/B T
MA001	MAAF-04840-ZZ3	PLATE-KNOB
MA002	MAAF-05440-ZZ3	WINDOW-FLT
MA100	MAAF-13380-004	COVER-POWER
ME001	MEAC-03320-002	RADIATOR-MAIN
MJ001	MJAF-03790-ZZ1	PANEL-FRONT
MJ002	MJAF-04830-ZZ3	DOOR-CAP
MJ003	MJAF-11690-ZZ4	KNOB-SURROUND
MJ004		
MJ005	MJAF-11700-ZZ4	KNOB-POWER
MJ006	MJAF-11730-ZZ4	KNOB-DSP
MJ007	MJAF-11750-ZZ4	LENS-POWER
MJ008	MJAF-12580-ZZ4	BADGE-AKAI
MJ009	MJAF-12450-ZZ4	LENS-VOLUME
MJ010	MJAF-12460-ZZ4	KNOB-VOLUME
MJ011	MJAF-12470-ZZ4	KNOB-MODE
MJ012	MJAF-12480-ZZ4	KNOB-SCAN
MJ013		
MJ014	MJAF-12490-ZZ4	KNOB-BALANCE
MJ015		
MJ016		
MJ107	MJAG-00281-003	BUSH-CORD DACS-12
MJ018	MJAG-00840-003	LATCH-PUSH M-21CD
MJ019	MJAG-04540-004	CABLE-TIE-L80
MJ020		
MJ021		
MJ022		
MJ023		
MJ024		
MJ025		
MJ026		
MJ027		
MJ028		
MJ029	MJAG-10260-004	FOOT-D59
MJ30		
MM001	MMAC-12060-004	TERMINAL-GND
MM002	MMAC-13040-ZZ4	RING-FOOT
MM003		
MM004	MMAC-17070-004	JACK-CONNECT
MM005		
MM006	MMTC-12183-004	SCREW-BH/W
MM007		BH/W3×14 D=14 t=1
MP001	MPAC-03330-002	CHASSIS-PT
MP002	MPAC-03340-002	CHASSIS-PCB
MP003	MPAC-03350-002	CHASSIS-FRONT
MP004	MPAC-03360-002	CHASSIS-BOTTOM
MP005	MPAC-03380-ZZ2	CHASSIS-BACK
MP006	MPAC-03800-ZZ1	CHASSIS-TOP
MP007	MPAC-03990-003	BRACKET-SIDE
MP008	MPAC-06710-004	CLAMP-WIRE-L52
MP009		
MP010		
MP011		
MP012		
MP013	MPAC-09240-004	BRACKET-RAD-C
MP014	MPAC-13370-004	BRACKET-RADIATOR
MR001	MRAG-06860-004	SHEET-SILICONE TA-403AR (EMERSON)
MR002	MRAG-09970-004	RUBBER-TR
MR003		27×18×0.3t
MR004		
MR005		
MR006	MRAG-10240-004	CUSHION-FOOT
MR007		
MR008		
MR009		
MR100	MRAG-11140-004	CUSHION-SIDE
MR101		
	* PTAP-02450-Y1V	TRANSFORMER-POWER A96-245Y-V 230V/50Hz
XS001	XSTB-30080-ZY4	SCREW-TAPPING BHT2T 3×8 FE-ZY
XS002		
XS003		
XS004		
XS005		
XS006		
XS007		
XS008		
XS009		
XS010		
XS011		
XS012		
XS013		
XS014		
XS015		
XS016		
XS017		
XS018		
XS019		
XS020		
XS021		
XS022		
XS023		
XS024		
XS025		
XS026		
XS027		
XS028		
XS029		
XS030		
XS032		
XS033		
XS034		
XS035		
XS036		
XS037		
XS038		
XS039		
XS040		
XS041		
XS042		

Ref. No.	Part No.	Description
XS043		
XS31		
XS063	XSTB-30100-ZY4	SCREW-TAPPING
XS064		BHT2T 3×10 FE-ZY
XS065		
XS066		
XS067		
XS068		
XS069		
XS070		
XS071		
XS072		
XS073		
XS074		
XS075		
XS076		
XS077		
XS078		
XS044	XSTB-30120-ZB4	SCREW-TAPPING
XS045		BHT2T 3×12 FE-ZB
XS046		
XS047		
XS048		
XS049		
XS050		
XS051		
XS052		
XS053		
XS054		
XS055		
XS056		
XS057		
XS058		
XS059		
XS060		
XS061		
XS062		
XS079	XSTB-30120-ZY4	SCREW-TAPPING
XS080		BHT2T 3×12 FE-ZY
XS081		
XS082		
XS083	XSTB-30160-ZY4	SCREW-TAPPING
XS084		BHT2T 3×16 FE-ZY
XS085	XSTB-40080-ZB4	SCREW-TAPPING
XS086		BHT2T 4×8 FE-ZB
XS087		
XS088		
XS089		
XS090		
XS091		
XS092		
XS093		
XS094	XSTB-40080-ZY4	SCREW-TAPPING
XS095		BHT2T 4×8 FE-ZY
XS096		
XS097		
XS098		
XS099		
XS100		
XS101		
XS102		
XS103		
XS105	XSTS-30080-ZY4	SCREW-TAPPING
XS106		PHWT2T 3×8 FE-ZY
XS107		
XS108		
XS109		
XS110		
XS111		
XS112		
XS113		
XS114		
XS115		
XS116		
YG001	YGAP-11500-ZZ4	BOX-GIFT
YI001	YIAR-1006-ZZE	INST-MANUAL
YP001	YPAR-E1000-01A	PRINT-A
YS001	YSAP-01160-001	CUSHION-L/R
YS002		
YV001	YVAP-01861-004	POLY-BAG-I
	YSAP-0623C-004	PAD-CUSHION
		490×210×20t(TRV-1400)
YV002	YVAP-10401-004	TOLON-BAG-S

3. ASS'Y FRONT PCB

Ref. No.	Part No.	Description
C236	CCAT-J101K-AAB	CAPACITOR CERAMIC
C237		100PF K 50V B T
C244		
C248		
C256		
C257		
C258		
C259		
C260		
C261		
C262		
C263		
C264		
C265		
C266		
C267		
C268		
C269		
C270		
C271		
C272		
C273		
C274		
C275		
C277		
C278		
C279		
C298		
C301		
C302		
C303		
C902		
C911		
C912		
C927		
C928		
C940		
C956		
C957		
C958		
C293	CCAT-J102K-AAB	CAPACITOR CERAMIC
C294		1000PF K 50V B T
C944		
C313	CCAT-J104Z-AAF	CAPACITOR CERAMIC
C932		0.1μF Z 50V F T
C933		
C946		
C947		
C948		
C949		
C951		
C952		
C954		
C955		
C281	CCAT-J220J-AAZ	CAPACITOR CERAMIC
C282		22PF J 50V SL T
C307		
C308		
C930	CCAT-J223Z-EAY	CAPACITOR CERAMIC
		0.022μF Z 50V Y5 T
C238	CCAT-J331K-AAB	CAPACITOR CERAMIC
C239		330PF K 50V B T
C309	CCCT-J103Z-0DF	CAPACITOR CERAMIC
C310		0.01μF Z 50V F T
C916		
C917		
C959	CCCT-J104Z-0FF	CAPACITOR CERAMIC
		0.1μF Z 50V F T
C936	CCCT-J222K-0DB	CAPACITOR CERAMIC
C937		2200PF K 50V B T
C938		
C939		
C306	CCCT-J473Z-0JF	CAPACITOR CERAMIC
C904		0.047μF Z 50V F T
C918		
C953		
C906	CCTT-J330J-0DC	CAPACITOR CERAMIC
C907		33PF J 50V CH T
C245	CEET-D101M-CI0	CAPACITOR E/ALUMINUM
C249		100μF M 10V 5×11 T
C913		
C929		
C242	CEET-F470M-CI0	CAPACITOR E/ALUMINUM
C243		47μF M 25V 5×11 T
C276		
C285		
C290		
C291		
C296		
C297		
C305		
C312		
C252	CEET-JR47M-CI0	CAPACITOR E/ALUMINUM
C253		0.47μF M 50V 5×11 T
C284	CEET-J1R0M-CI0	CAPACITOR E/ALUMINUM
C304		1.0μF M 50V 5×11 T
C908		
C292	CEET-J100M-CI0	CAPACITOR E/ALUMINUM
C299		10μF M 50V 5×11 T
C300		
C311		
C905		
C240	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM
C241		4.7μF M 50V 5×11 T
C280		
C283		
C286		
C287		
C288		
C289		
C295		
C909	CEGS-B104Z-JC0	CAPACITOR E/DO LAYER
		0.1F Z 5.5V 12.5×5.5H S
C247	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR
C251		0.0015μF J 100V 5.4×12 T
C254		
C255		
C246	CFMT-N562J-DJ0	CAPACITOR F/POLYESTR
C250		0.0056μF J 100V 5.8×12 T
D102	DDTS-00060-SO0	DIODE-SI
D201		1SS131 (90V 0.13A) DO-40 T
D202		
D903		
D904		
D907		
D910		
D911		
D912		
D913		
D914		
D915		
D916		
D917		
D919		
D922		
D924		
D925		
D928		
D929		
D930		
D931		
FL901	DPFL-00360-00Z	DISPLAY-FLUORESCENT
		CM1360D
D901	DPLT-00011-VC5	DOT-LED
D902		SLR-54VC3 RED R5 N
D905		
D906		
D908		
D909		
IC901	ICCM-20730-S10	CMOS-LSI
		LC866124A QIP80E
IC902	ICDG-00560-SO0	IC MOTOR DRIVER
		BA6208 SIP9
IC202	ICDG-00610-S10	IC FUNCTION SELECTOR
IC206		LC7822 DIP30S
IC903	ICHY-00180-TL0	IC REMOTE RECEIVER
		KRM-65M
IC201	ICOP-00131-SE0	IC DUAL OP AMP
IC203		KA4558C DIP8
IC204		
IC205		
CW903	KNCW-00240-CT9	CONNECTOR-WAFER
		53014-12 2.0mm WHT

Ref. No.	Part No.	Description
CW301	KNCW-00240-4T9	CONNECTOR-WAFER 53014-04 2.0mm WHT
CW601	KNCW-00260-8S9	CONNECTOR-WAFER 5268-08A 2.5mm WHT
CW501	KNCW-00690-CT9	CONNECTOR-WAFER
CW502		BMW250-12 2.5mm 12P WHT
CW101	KNCW-00690-7T9	CONNECTOR-WAFER BMW250-07 2.5mm 7P WHT
CW807	KNCW-00980-2S9	CONNECTOR-WAFER JE202-2T-2P
X901	KTAL-00101-003	CRYSTAL KDSIF 32.768KHz-20P
X902	KTRE-00210-120	RESONATOR CST12.0MTW-TF01
MJ100	MJAG-01320-003	GUIDE-FLT
NR1	NERX-J0078-473	NETWORK-RESISTOR EXB-F9E473J 47K×8 9P 2.54
	PCSR-03060-11B	PCB-SINGLE A1R-306 330×247×1.6t
R941	RCFT-E1R0J-000	RESISTOR-CARBON FILM
R942		1ohm 1/5W 5% T
R910	RCFT-E100J-000	RESISTOR-CARBON FILM
R921		10ohm 1/5W 5% T
R905	RCFT-E101J-000	RESISTOR-CARBON FILM
R906		100ohm 1/5W 5% T
R913		
R914		
R915		
R928		
R929		
R930		
R931		
R267	RCFT-E102J-000	RESISTOR-CARBON FILM
R268		1Kohm 1/5W 5% T
R269		
R270		
R271		
R272		
R273		
R274		
R275		
R276		
R278		
R279		
R280		
R298		
R299		
R300		
R916		
R917		
R922		
R923		
R907	RCFT-E103J-000	RESISTOR-CARBON FILM
		10Kohm 1/5W 5% T
R237	RCFT-E104J-000	RESISTOR-CARBON FILM
R253		100Kohm 1/5W 5% T
R254		
R255		
R256		
R281		
R283		
R288		
R289		
R903		
R908		
R909		
R932		
R933		
R934		
R935		
R936		
R937		
R943		
R944		
R238	RCFT-E123J-000	RESISTOR-CARBON FILM
R912		12Kohm 1/5W 5% T
R296	RCFT-E124J-000	RESISTOR-CARBON FILM
		120Kohm 1/5W 5% T
R251	RCFT-E152J-000	RESISTOR-CARBON FILM
R252		1.5Kohm 1/5W 5% T
R236	RCFT-E221J-000	RESISTOR-CARBON FILM
R247		220ohm 1/5W 5% T
R248		
R282		
R287		
R264	RCFT-E224J-000	RESISTOR-CARBON FILM
R266		220Kohm 1/5W 5% T
R303		
R901	RCFT-E271J-000	RESISTOR-CARBON FILM
R902		270ohm 1/5W 5% T
R919		
R925		
R926		
R239	RCFT-E471J-000	RESISTOR-CARBON FILM
R240		470ohm 1/5W 5% T
R242		
R245		
R246		
R263		
R265		
R277		
R286		
R290		
R292		
R293		
R297		
R301		
R920	RCFT-E472J-000	RESISTOR-CARBON FILM
		4.7Kohm 1/5W 5% T
R243	RCFT-E473J-000	RESISTOR-CARBON FILM
R249		47Kohm 1/5W 5% T
R250		
R258		
R261		
R291		
R241	RCFT-E563J-000	RESISTOR-CARBON FILM
R244		56Kohm 1/5W 5% T
R284		
R285		
R294		
R295		
R257	RCFT-E564J-000	RESISTOR-CARBON FILM
R260		560Kohm 1/5W 5% T
R918	RCFT-E750J-000	RESISTOR-CARBON FILM
		75ohm 1/5W 5% T

Ref. No.	Part No.	Description
R259	RCFT-E821J-000	RESISTOR-CARBON FILM
R262		820ohm 1/5W 5% T
R911	RCFT-E823J-000	RESISTOR-CARBON FILM
		82Kohm 1/5W 5% T
ACOUT1	SKAO-00130-4CV	AC OUTLET
ACOUT2		YKE31-0090 4.0PI 250V 2.5A
JK202	SKRC-00310-060	SOCKET-RCA JK0600920N 6P
JK201	SKRC-00420-061	SOCKET-RCA JK0600460N
SW901	SWTA-00220-060	SWITCH-TACT
SW902		SKHV10910(A) 12V 50mA
SW903		
SW904		
SW905		
SW906		
SW907		
SW908		
SW909		
SW910		
SW911		
SW912		
SW913		
SW914		
SW915		
SW916		
SW917		
SW918		
SW919		
SW920		
SW921		
SW922		
SW923		
SW924		
SW925		
SW926		
SW927		
SW928		
SW929		
SW930		
SW931		
SW932		
TE601	TESP-00241-04S	TERMINAL SPEAKER SH041037CN(4P)
Q906	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ KTA1266-Y TO92
Q909	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ KTC3198-Y TO92
Q901	TRTC-0034Y-SOS	TRANSISTOR N-H FREQ
Q902		DTC114Y-S TO92
Q903		
Q904		
Q907		
Q908		
Q910		
Q905	TRTD-00200-SD0	TRANSISTOR N-L FREQ KTD-1302 TO92
CH903	UC08-2M830-168	WIRE-ASS'Y UL1007#28 RED-300 12P
CH901	UF08-5M750-168	WIRE-ASS'Y UL1007#26 GRN-500 15P
CH904	U208-1M708-168	WIRE-ASS'Y UL1007#26 BRN-80 2P
CH801	U408-3M660-168	WIRE-ASS'Y UL1007#24 ORG-600 4P
CH902	U408-3M710-168	WIRE-ASS'Y UL1007#26 ORG-100 4P
CH905	U408-3M735-168	WIRE-ASS'Y UL1007#26 ORG-350 4P
CH302	U408-80824-168	WIRE-ASS'Y UL1533#28 WHT-240 4P

4. ASS'Y MAIN PCB

Ref. No.	Part No.	Description
C805	* CACS-S472M-179	CAPACITOR AC DE7100F472M
C321	CCAT-J101K-AAB	CAPACITOR CERAMIC
C322		100PF K 50V B T
C323		
C324		
C332		
C336		
C651		
C652		
C719		
C720		
C335	CCAT-J102K-AAB	CAPACITOR CERAMIC
C338		1000PF K 50V B T
C701		
C711		
C326	CCAT-J104Z-AAF	CAPACITOR CERAMIC
C482		0.1㎌ Z 50V F T
C333	CCAT-J330J-AAZ	CAPACITOR CERAMIC
C337		33PF J 50V SL T
C357		
C365		
C602	CCAT-J391K-AAB	CAPACITOR CERAMIC
C616		390PF K 50V B T
C481	CCAT-J561K-AAB	CAPACITOR CERAMIC
C483		560PF K 50V B T
C817	CCCS-V103K-0NB	CAPACITOR CERAMIC
C822		0.01㎌ K 500V B S
C610	CCCT-J102K-0BB	CAPACITOR CERAMIC
C628		1000PF K 50V B T
C836	CCCT-J104Z-0FF	CAPACITOR CERAMIC
		0.1㎌ Z 50V F T
C635	CCCT-J222K-0DB	CAPACITOR CERAMIC
C636		2200PF K 50V B T
C637		
C638		
C751		
C752		
C753		
C754		
C755		
C830		
C807	CCCT-J223Z-0FF	CAPACITOR CERAMIC
C815		0.022㎌ Z 50V F T
C816		
C823		
C833		
C834		
C340	CCCT-J473Z-0JF	CAPACITOR CERAMIC
C604		0.047㎌ Z 50V F T

Ref. No.	Part No.	Description
C618		
C717	CCTT-J1R0C-0BZ	CAPACITOR CERAMIC
C718		1PF C 50V SL T
C369	CCTT-J101J-0CZ	CAPACITOR CERAMIC
C370		100PF J 50V SL T
C605		
C619		
C607	CCTT-J150J-0BZ	CAPACITOR CERAMIC
C621		15PF J 50V SL T
C611	CCTT-J221J-0DZ	CAPACITOR CERAMIC
C612		220PF J 50V SL T
C626		
C627		
C608	CCTT-J3R0C-0BZ	CAPACITOR CERAMIC
C622		3PF C 50V SL T
C351	CCTT-J471J-0FZ	CAPACITOR CERAMIC
C352		470PF J 50V SL T
C603		
C617		
C609	CCTT-J5R0C-0BZ	CAPACITOR CERAMIC
C623		5PF C 50V SL T
C829	CEEM-F681M-KN1	CAPACITOR E/ALUMINUM
		680μF M 25V 13×20 U M
C808	CEEM-G102M-KP1	CAPACITOR E/ALUMINUM
C809		1000μF M 35V 13×25 U M
C813	CEES-J332M-OS1	CAPACITOR E/ALUMINUM
C814		3300μF M 50V 22×35 S
C632	CEET-C471M-FI1	CAPACITOR E/ALUMINUM
		470μF M 6.3V 8×11.5 U T
C331	CEET-F470M-CI0	CAPACITOR E/ALUMINUM
C344		47μF M 25V 5×11 T
C356		
C363		
C606		
C620		
C703		
C713		
C325	CEETG330M-CI0	CAPACITOR E/ALUMINUM
		33μF M 35V 5×11 T
C803	CEET-G331M-HL1	CAPACITOR E/ALUMINUM
		330μF M 35V 10×16 U T
C708	CEET-JR10M-CI0	CAPACITOR E/ALUMINUM
		0.1μF M 50V 5×11 T
C801	CEET-J1R0M-CI0	CAPACITOR E/ALUMINUM
C802		1.0μF M 50V 5×11 T
C804		
C828		
C334	CEET-J100M-CI0	CAPACITOR E/ALUMINUM
C339		10μF M 50V 5×11 T
C355		
C358		
C364		
C366		
C705		
C709		
C832	CEET-J101M-FI0	CAPACITOR E/ALUMINUM
		100μF M 50V 8×11.5 T
C702	CEET-J2R2M-CI0	CAPACITOR E/ALUMINUM
C712		2.2μF M 50V 5×11 T
C342	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM
C343		4.7μF M 50V 5×11 T
C601		
C615		
C629		
C631		
C633		
C706		
C715		
C707	CEET-J470M-DI0	CAPACITOR E/ALUMINUM
C714		47μF M 50V 6.3×11 T
C831		
C835		
C838		
C820	CEEZ-L682M-003	CAPACITOR E/ALUMINUM
C821		6800μF M 63V 30×40 S.N Z
C810	CFMT-N103J-DE0	CAPACITOR F/POLYESTR
C811		0.01μF J 100V 6×7 T
C812		
C818		
C819		
C826		
C827		
C359	CFMT-N153J-EK0	CAPACITOR F/POLYESTR
C367		0.015μF J 100V 7.1×13 T
C353	CFMT-N183J-EK0	CAPACITOR F/POLYESTR
C362		0.018μF J 100V 7.3×13 T
C354	CFMT-N332J-DJ0	CAPACITOR F/POLYESTR
C361		0.0033μF J 100V 5.8×12 T
C613	CFMT-N473J-GK0	CAPACITOR F/POLYESTR
C614		0.047μF J 100V 8.9×13 T
C624		
C625		
C630		
C634		
C710		
C716		
C360	CFMT-N823J-IK0	CAPACITOR F/POLYESTR
C368		0.082μF J 100V 10.6×14 T
D807	DDMR-00210-T11	DIODE-RECTIFIER
D808		1N5402S (200V 3A) DO-20 M
D809		
D810		
D611	DDTR-00040-T10	DIODE-RECTIFIER
D751		1N4004 (400V 1A) DO-41 T
D801		
D802		
D803		
D804		
D805		
D806		
D811		
D817		
D818		
D819		
D821		
D822		
D601	DDTS-00060-SO0	DIODE-SI
D603		1SS131 (90V 0.13A) DO-40 T
D604		
D605		
D606		
D608		
D609		
D610		
D701		
D702		

Ref. No.	Part No.	Description
D703		
D704		
D705		
D706		
D823		
D824		
D825		
D826		
D827		
D828		
D829		
D813	DDTZ-G062B-SO0	DIODE ZENER
		MTZ6.2B 5.96-6.27 DO40 T
D602	DDTZ-G120B-SO0	DIODE ZENER
D607		MTZ12B 11.44-12.03 DO40 T
D814	DDTZ-G150C-SO0	DIODE ZENER
		MTZ15C 14.35-15.09 DO40 T
D820	DDTZ-G180C-SO0	DIODE ZENER
		MTZ18C 17.42-18.33 DO40 T
D812	DD4B-00210-TX0	DIODE-BRIDGE
		BU8-02 200V 8A BRIDGE
D301	DPLT-00011-VC5	DOT-LED
		SLR-54VC3 RED R5 N
RL801	ESRY-00110-121	RELAY
		JW1AFSN DC 12V
RL803	ESRY-00150-121	RELAY
		RD 2N-1U-12V DC
RL601	ESRY-00170-24K	RELAY
RL701		HR-CR323 DC24V (GH)
RL802	ESRY-00180-24K	RELAY
		HR-CR321 DC24V
IC701	ICHP-00100-S10	IC HYBRID AMP-POWER
		STK4192 Ⅱ 50W×2 SIP18
IC301	ICOP-00130-SE0	IC DUAL OP AMP
		KA4558S SIP9
IC302	ICOP-00131-SE0	IC DUAL OP AMP
		KA4558C DIP8
IC802	ICRG-00061-SE0	IC REGULATOR
		KA7815 15V 3mm TO-220
IC801	ICRG-00091-SE0	IC REGULATOR
IC804		KA7806 6V 3mm TO-220
IC803	ICRG-00251-SE0	IC REGULATOR
		KA7915 15V 3mm TO-220
L601	KIBK-00050-E40	COIL-AUDIO CHOCK
L602		ABK005 2.2μH
L701		
L702		
CW802	KNCW-00140-3TM	CONNECTOR-WAFER
		5267-03A 2.5mm MILK
CW309	KNCW-00140-4TM	CONNECTOR-WAFER
CW801		5267-04A 2.5mm MILK
CW904	KNCW-00160-2S9	CONNECTOR-WAFER
		53015-0210 2mm WHT
CW901	KNCW-00240-FT9	CONNECTOR-WAFER
		53014-15 2.0mm WHT
CW307	KNCW-00240-2T9	CONNECTOR-WAFER
		53014-02 2.0mm WHT
CW304	KNCW-00240-3T9	CONNECTOR-WAFER
		53014-03 2.0mm WHT
CW902	KNCW-00240-4T9	CONNECTOR-WAFER
		53014-04 2.0mm WHT
CW602	KNCW-00240-5T9	CONNECTOR-WAFER
		53014-05 2.0mm WHT
CW306	KNCW-00240-6T9	CONNECTOR-WAFER
		53014-06 2.0mm WHT
CW701	KNCW-00240-8T9	CONNECTOR-WAFER
		53014-08 2.0mm WHT
CW305	KNCW-00240-9T9	CONNECTOR-WAFER
		53014-09 2.0mm WHT
CW803	KNCW-00970-3T9	CONNECTOR-WAFER
		JE202-1T-3P
CW804	KNCW-00970-5T9	CONNECTOR-WAFER
		JE202-1T-5P
CW805	KNCW-00990-2T9	CONNECTOR-WAFER
CW806		JE202A-1T-02
	LUBA-24141-110	WIRE-ASS'Y
		UL1007#24 BLK-140
	LUBA-24121-110	WIRE-ASS'Y
		UL1007#24 BLK-110
	UITI-01606-Z24	WIRE-ASS'Y
		UL1007#24 BLK-60 3.2R-T
	UITI-01720-T20	WIRE-ASS'Y
		UL1007#26 BLK-200 3.2R-T
ME103	MEAC-08215-004	RADIATOR-TR
ME104		
ME105		
ME101	MEAC-12693-004	HEAT-SINK(TR)
FH801	MPAC-11620-004	FUSE CLIP
FH802		5.2Pi TAPPING TYPE
FH803		
FH804		
FH805		
FH806		
FH807		
FH808		
FH809		
FH810		
FH811		
FH812		
MP100	MPAC-13380-004	SHIELD-JACK
MP101	MPAC-13390-004	SHIELD-TR
	PCSR-03070-11B	PCB-SINGLE
		A1R-307 330×247×1.6t
	* PTAD-02380-Y1V	TRANSFORMER-POWER
		A41-238Y-V 230V/50Hz
R658	RCFT-E100J-000	RESISTOR-CARBON FILM
R703		10ohm 1/5W 5% T
R754		
R806		
R704	RCFT-E101J-000	RESISTOR-CARBON FILM
		100ohm 1/5W 5% T
R321	RCFT-E102J-000	RESISTOR-CARBON FILM
R322		1Kohm 1/5W 5% T
R603		
R605		
R608		
R619		
R620		
R621		
R625		
R629		
R657		
R701		
R721		

Ref. No.	Part No.	Description
R751		
R807		
R813		
R951		
R952		
R955		
R957		
R958		
R606	RCFT-E103J-000	RESISTOR-CARBON FILM 10Kohm 1/5W 5% T
R607		
R610		
R626		
R627		
R628		
R647		
R650		
R811		
R335	RCFT-E104J-000	RESISTOR-CARBON FILM 100Kohm 1/5w 5% T
R336		
R341		
R342		
R351		
R353		
R355		
R362		
R363		
R370		
R649		
R356	RCFT-E105J-000	RESISTOR-CARBON FILM 1Mohm 1/5W 5% T
R365		
R614	RCFT-E122J-000	RESISTOR-CARBON FILM 1.2Kohm 1/5W 5% T
R634		
R755		
R716	RCFT-E123J-000	RESISTOR-CARBON FILM 12Kohm 1/5W 5% T
R736		
R707	RCFT-E151J-000	RESISTOR-CARBON FILM 150ohm 1/5W 5% T
R732		
R358	RCFT-E152J-000	RESISTOR-CARBON FILM 1.5Kohm 1/5W 5% T
R368		
R481		
R482		
R639	RCFT-E153J-000	RESISTOR-CARBON FILM 15Kohm 1/5W 5% T
R653		
R715		
R733		
R641	RCFT-E181J-000	RESISTOR-CARBON FILM 180ohm 1/5W 5% T
R652		
R615	RCFT-E203J-000	RESISTOR-CARBON FILM 20Kohm 1/5W 5% T
R635		
R717	RCFT-E220J-000	RESISTOR-CARBON FILM 22ohm 1/5W 5% T
R718		
R734		
R735		
R333	RCFT-E221J-000	RESISTOR-CARBON FILM 220ohm 1/5W 5% T
R334		
R343		
R344		
R601		
R602		
R609		
R618		
R623		
R624		
R630		
R638		
R337	RCFT-E222J-000	RESISTOR-CARBON FILM 2.2Kohm 1/5W 5% T
R338		
R339		
R340		
R359		
R369		
R645		
R357	RCFT-E223J-000	RESISTOR-CARBON FILM 22Kohm 1/5W 5% T
R366		
R640		
R648		
R651		
R753		
R613	RCFT-E272J-000	RESISTOR-CARBON FILM 2.7Kohm 1/5W 5% T
R633		
R724	RCFT-E391J-000	RESISTOR-CARBON FILM 390ohm 1/5W 5% T
R812		
R814		
R361	RCFT-E392J-000	RESISTOR-CARBON FILM 3.9Kohm 1/5W 5% T
R367		
R331	RCFT-E471J-000	RESISTOR-CARBON FILM 470ohm 1/5W 5% T
R332		
R354		
R364		
R642	RCFT-E472J-000	RESISTOR-CARBON FILM 4.7Kohm 1/5W 5% T
R654		
R646	RCFT-E473J-000	RESISTOR-CARBON FILM 47Kohm 1/5W 5% T
R752		
R352	RCFT-E561J-000	RESISTOR-CARBON FILM 560ohm 1/5W 5% T
R360		
R706		
R611	RCFT-E562J-000	RESISTOR-CARBON FILM 5.6Kohm 1/5W 5% T
R631		
R612	RCFT-E563J-000	RESISTOR-CARBON FILM 56Kohm 1/5W 5% T
R632		
R702		
R705		
R722		
R723		
R616	RCFT-E680J-000	RESISTOR-CARBON FILM 68ohm 1/5W 5% T
R617		
R636		
R637		
R604	RCFT-E683J-000	RESISTOR-CARBON FILM 68Kohm 1/5W 5% T
R622		
R663	RCFT-E7R5J-000	RESISTOR-CARBON FILM 7.5ohm 1/5W 5% T
R323	RCFT-E750J-000	RESISTOR-CARBON FILM 75ohm 1/5W 5% T
R956	RCFT-E820J-000	RESISTOR-CARBON FILM 82ohm 1/5W 5% T
R809	RCFT-E821J-000	RESISTOR-CARBON FILM 820ohm 1/5W 5% T
R719	RCFT-F220J-000	RESISTOR-CARBON FILM 22ohm 1/4W 5% T
R720		
R737		
R738		
R713	RCFT-F222J-010	RESISTOR-CARBON FILM 2.2Kohm 1/4W 5% T
R714		
R729		
R730		

Ref. No.	Part No.	Description
R709	RCFT-F682J-010	RESISTOR-CARBON FILM 6.8Kohm 1/4W 5% T
R710		
R711		
R712		
R725		
R726		
R727		
R728		
R659	RCMZ-LR22J-480	RESISTOR-CEMENT 0.22ohm 5W 5% J 17×14
R660		
R661		
R662		
R808	* RFUM-G150J-130	RESISTOR-FUSIBLE 15ohm 1/2W 5% M
R959	* RFUZ-F100G-001	RESISTOR-FUSIBLE 10ohm 1/4W G ERD2FCG100P
R643	RMOH-H100J-030	RESISTOR-METAL OXIDE 10ohm 1W 5% H
R644		
R655		
R656		
R805		
R804	RMOH-H3R3J-030	RESISTOR-METAL OXIDE 3.3ohm 1W 5% H
R802	RMOH-J220J-040	RESISTOR-METAL OXIDE 22ohm 2W 5% H
R816		
R803	RMOH-J222J-040	RESISTOR-METAL OXIDE 2.2Kohm 2W 5% H
R815	RMOH-J390J-040	RESISTOR-METAL OXIDE 39ohm 2W 1% H
R953	RMOH-J471J-040	RESISTOR-METAL OXIDE 470ohm 2W 5% H
R954		
R708	RMOH-KR22J-040	RESISTOR-METAL OXIDE 0.22ohm 3W 5% H
R731		
JK403	SKPH-00293-66W	SOCKET-PHONE HTJ064-05BG GOLD
JK901	SKRC-00150-020	SOCKET-RCA LGA6502-0150 2P
JK701	SKRC-00280-020	SOCKET-RCA JK0200900N 2P
JK301	SKRC-00380-031	SOCKET-RCA JK0300081G
SW801	SWTA-00230-06V	SWITCH-TACT SKHH17910A 12V 50mA W/GND
TE701	TESP-00220-06P	TERMINAL SPEAKER P40620701P
Q605	TRSA-0013Y-SD0	TRANSISTOR P-H FREQ KTA1024-Y TO92L
Q620		
Q601	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ KTA1266-Y TO92
Q616		
Q631		
Q803	TRTA-0011G-SD0	TRANSISTOR P-H FREQ KTA1266-GR TO92
Q615	TRTA-0040Y-SOS	TRANSISTOR P-H FREQ DTA114Y-S W/RESIST TO92M
Q610	TRTA-00700-SD0	TRANSISTOR P-H FREQ KTA1659-O TO-220IS
Q623		
Q611	TRTA-0090Y-SJ0	TRANSISTOR P-H FREQ 2SA1695-Y TO3P
Q625		
Q602	TRTC-0015G-SD0	TRANSISTOR N-H FREQ KTC3200-GR TO92
Q603		
Q617		
Q618		
Q630	TRTC-0016G-SD0	TRANSISTOR N-H FREQ KTC3198-GR TO92
Q751		
Q801		
Q802		
Q804		
Q604	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ KTC3198-Y TO92
Q612		
Q619		
Q627		
Q628		
Q629		
Q701		
Q702		
Q606	TRTC-00710-SD0	TRANSISTOR N-H FREQ KTC4370-O TO-220IS
Q607		
Q622		
Q624		
Q609	TRTC-0087Y-SD0	TRANSISTOR N-H FREQ KTC3206-Y TO92L
Q621		
Q608	TRTC-0130Y-SJ0	TRANSISTOR N-H FREQ 2SC4468-Y TO3P
Q626		
Q613	TRTD-00200-SD0	TRANSISTOR N-L FREQ KTD-1302 TO92
Q614		
CH301	UM08-40357-008	WIRE-ASS'Y 2547#28 1007#28-200
CH807	UM48-30359-008	WIRE-ASS'Y 1617#22×2 BLK/WHT-140
CH906	U208-1M855-168	WIRE-ASS'Y UL1007#28 BRN-550 2P
CH308	U208-9K814-168	WIRE-ASS'Y UL20080#28 WHT-140 2P
CH304	U308-8S835-168	WIRE-ASS'Y UL2547#28 RED-350 3P
CH303	U408-3M718-168	WIRE-ASS'Y UL1007#26 ORG-180 4P
CH309	U410-80830-208	WIRE-ASS'Y UL1533#28 WHT-300 4P
CH602	U508-4M740-168	WIRE-ASS'Y UL1007#26 YEL-400 5P
CH308	U808-7M640-168	WIRE-ASS'Y UL1007#24 VIO-140 8P
CH801	U810-7M610-208	WIRE-ASS'Y UL1007#24 VIO-100 8P
CH305	U908-8M816-168	WIRE-ASS'Y UL1007#26 GRY-160 9P
VR304	VRAE-M037W-104	VR-ROTARY RK11K1160205 (14W)-100KW
VR302	VRBE-M036C-104	VR-ROTARY RK14K1260205 (14C) 100KC×2
VR303		
VR301	VWDD-E002B-503	VR-W/MOTOR EUZ-MR4F20B54

5. ASS'Y TUNER PCB

Ref. No.	Part No.	Description
CF106	BTBP-00011-BPM	FILTER-MICA PRINT BPMB6A 88-108MHz
CF101	BTCE-00152-107	FILTER-CERAMIC SFE 10.7MJA10H-A FTZ
CF102		
CF103	BTCE-00440-045	FILTER-CERAMIC ACFM3-450BL
CF104	BTCE-00270-004	FILTER-CERAMIC BFU450C4N

Ref. No.	Part No.	Description
CF105	*BTCE-00310-004*	*FILTER-CERAMIC CSB456F11*
C584	CCAT-E222M-AAY	CAPACITOR CERAMIC
C585		2200PF M 16V Y5R T
C160	CCAT-J101K-AAB	CAPACITOR CERAMIC
C161		100PF K 50V B T
C162		
C533		
C534		
C535		
C564		
C558	CCAT-J102K-AAB	CAPACITOR CERAMIC
C561		1000PF K 50V B T
C563		
C566		
C152	CCAT-F1032-AAF	CAPACITOR CERAMIC
		0.01μF Z 25V F T
C439	CCAT-J104Z-AAF	CAPACITOR CERAMIC
		0.1μF Z 50V F T
C559	CCAT-J221K-AAB	CAPACITOR CERAMIC
		220PF K 50V B T
C120	CCCT-J102K-0BB	CAPACITOR CERAMIC
C158		1000PF K 50V B T
C103	CCCT-J103Z-0DF	CAPACITOR CERAMIC
C105		0.01μF Z 50V F T
C109		
C141		
C144		
C145		
C406		
C407		
C587	CCCT-J104Z-0FF	CAPACITOR CERAMIC
C588		0.1μF Z 50V F T
C540	CCCT-J222K-0DB	CAPACITOR CERAMIC
		2200PF K 50V B T
C101	CCCT-J223Z-0FF	CAPACITOR CERAMIC
C108		0.022μF Z 50V F T
C114		
C115		
C135		
C136		
C138		
C139		
C140		
C142		
C143		
C150		
C154		
C159		
C543		
C104	CCCT-J473Z-0JF	CAPACITOR CERAMIC
C107		0.047μF Z 50V F T
C118		
C542		
C404	CCTT-J1R0C-0BZ	CAPACITOR CERAMIC
C405		1PF C 50V SL T
C119	CCTT-J101J-0CZ	CAPACITOR CERAMIC
C432		100PF J 50V SL T
C434		
C436		
C438		

C147	CCTT-J151J-0DZ	CAPACITOR CERAMIC
		150PF J 50V SL T
C146	CCTT-J220J-0BZ	CAPACITOR CERAMIC
		22PF J 50V SL T
C435	CCTT-J221J-0DZ	CAPACITOR CERAMIC
C437		220PF J 50V SL T
C431	CCTT-J331J-0FZ	CAPACITOR CERAMIC
C433		330PF J 50V SL T
C124	CCTT-J471J-0FZ	CAPACITOR CERAMIC
C126		470PF J 50V SL T
C137	CCTT-J820J-0BZ	CAPACITOR CERAMIC
		82PF J 50V SL T
C155	CCTT-J300J-0BZ	CAPACITOR CERAMIC
C156		30PF J 50V SL T
C402	CEET-C471M-FI1	CAPACITOR E/ALUMINUM
C403		470μF M 6.3V 8×11.5 U T
C408	CEET-D101M-CI0	CAPACITOR E/ALUMINUM
C409		100μF M 10V 5×11 T
C582	CEET-D221M-DI0	CAPACITOR E/ALUMINUM
		220μF M 10V 6.3×11 T
C121	CEET-E101M-DI0	CAPACITOR E/ALUMINUM
C545		100μF M 16V 6.3×11 T
C503	CEET-E221M-FI0	CAPACITOR E/ALUMINUM
C508		220μF M 16V 8×11.5 T
C541		
C548		
C553		
C117	CEET-F470M-CI0	CAPACITOR E/ALUMINUM
C153		47μF M 25V 5×11 T
C157		
C183		
C185		
C527		
C546		
C557		
C562		
C568		
C570		
C589		
C401	CEET-G330M-CI0	CAPACITOR E/ALUMINUM
		33μF M 35V 5×11 T
C128	CEET-JR47M-CI0	CAPACITOR E/ALUMINUM
C129		0.47μF M 50V 5×11 T
C511		
C513		
C522		
C524		
C528		
C116	CEET-J1R0M-CI0	CAPACITOR E/ALUMINUM
C151		1.0μF M 50V 5×11 T
C530		
C549		
C555		
C572		
C575		
C583		
C102	CEET-J100M-CI0	CAPACITOR E/ALUMINUM
C106		10μF M 50V 5×11 T
C122		
C130		
C132		
C133		
C163		

Ref. No.	Part No.	Description
C165		
C504		
C505		
C506		
C507		
C544		
C125	CEET-J2R2M-CI0	CAPACITOR E/ALUMINUM
C127		2.2μF M 50V 5×11 T
C529		
C531		
C536		
C547		
C554		
C516	CEET-J3R3M-CI0	CAPACITOR E/ALUMINUM
C519		3.3μF M 50V 5×11 T
C111	CEET-J4R7M-CI0	CAPACITOR E/ALUMINUM
C112		4.7μF M 50V 5×11 T
C113		
C131		
C178		
C179		
C512		
C514		
C521		
C523		
C556		
C560		
C565		
C567		
C569		
C574		
C571	CEET-J470M-DI0	CAPACITOR E/ALUMINUM
		47μF M 50V 6.3×11 T
C110	CEET-J6R8M-CI0	CAPACITOR E/ALUMINUM
		6.8μF M 50V 5×11 T
C515	CFMS-N154J-JN0	CAPACITOR F/POLYESTR
C517		0.15μF J 100V 12.2×19 S
C518		
C520		
C539	CFMT-N103J-DE0	CAPACITOR F/POLYESTR
		0.01μF J 100V 6×7 T
C509	CFMT-N104J-JK0	CAPACITOR F/POLYESTR
C510		0.10μF J 100V 12.1×14 T
C525		
C526		
C551	CFMT-N152J-CJ0	CAPACITOR F/POLYESTR
		0.0015μF J 100V 5.4×12 T
C201	CFMT-N153J-EK0	CAPACITOR F/POLYESTR
		0.015μF J 100V 7.1×13 T
C501	CFMT-N223J-EK0	CAPACITOR F/POLYESTR
		0.022μF J 100V 7.4×13 T
C202	CFMT-N333J-FK0	CAPACITOR F/POLYESTR
C550		0.033μF J 100V 8.1×13 T
C552		
C123	CFMT-N473J-GK0	CAPACITOR F/POLYESTR
C502		0.047μF J 100V 8.9×13 T
C149	CFST-O221J-CT0	CAPACITOR F/STYROL
		220PF J 125V 5.5×12 T
C148	CFST-O471J-CJ0	CAPACITOR F/STYROL
		470PF J 125V 5.5×12 T
C134	CFST-O561J-CJ0	CAPACITOR F/STYROL
		560PF J 125V 5.5×12 T

C532	CFST-O681J-CJ0	CAPACITOR F/STYROL
		680PF J 125V 5.5×12 T
VD101	DDSV-0003B-S30	DIODE-VVC
VD102		1SV149B AM 8V DIP2 S
VD103		
VD104		
D103	DDTS-00060-SO0	DIODE-SI
D104		1SS131 (90V 0.13A) DO-40 T
D105		
D106		
D107		
D109		
D502		
D503		
D504		
D505		
D506		
D507		
D509		
D510		
D501	DDTZ-G100B-SO0	DIODE ZENER
		MTZ10B 9.41-9.90 DO40 T
D113	DDTZ-G130B-SO0	DIODE ZENER
		MTZ13B 12.55-13.21 DO40 T
IC401	ICCM-00060-SQ0	IC QUAD SWITCH
		GD4066B DIP14
IC103	ICCM-20380-S10	IC PLL
		LC7218 DIP24S
IC502	ICCM-20740-S10	CMOS LSI
		LV1010N DIP24S
IC501	ICDG-01140-S10	D.P.L. DECORDER
		LA2785 DIP42S
IC102	ICLN-00190-S10	IC FM MPX
		LA3410 DIP16
IC101	ICLN-01630-S10	IC AM/FM IF
		LA1267 DIP24
IC503	ICOP-00130-SE0	IC DUAL OP AMP
IC504		KA4558S SIP9
IC505		
T106	IFFA-00110-E20	IFT-FM
		AFA011 7mm-CAN
T107	IFFD-00100-E20	IFT-FM DET
		AFD010 7mm-CAN
T105	IFAA-00250-E20	COIL-AM IFT
		AAA-025
T103	KIAO-00240-E20	COIL-AM OSC
		AAO024 MW 7mm-CAN
T104	KIAO-00250-E20	COIL-AM OSC
		AAO025 LW 7mm-CAN
T102	KIAT-00301-E20	COIL-AM ANT
		AAT030-1 LW 10mm-CAN
T101	KIAT-00351-E20	COIL-AM ANT
		AAT035-1 MW 10mm-CAN
L101	KIFK-00050-E40	COIL-FM CHOKE
		AFK-005 2.2μH K
T109	KIML-00020-E20	COIL FM MPX FILTER
T110		AMA002 19KHz 7mm-CAN
T108	KIML-A0020-E20	COIL-FM MPX FILTER
		AFL002 114KHz 7mm-CAN
L501	KIOT-3101K-002	COIL-INDUCTOR
		100μH K LA 30 T L 04
L102	KIOT-4101K-003	COIL-INDUCTOR
		100μH K LA 40 T L 02

Ref. No.	Part No.	Description
CH501	KNCH-00360-CT9	CONNECTOR-HOUSING
CH502		BMH250-12R 2.5mm 12P WHT
CH101	KNCH-00360-7T9	CONNECTOR-HOUSING
		BMH250-07R 2.5mm 7P WHT
TP1	KNCW-00170-2T9	CONNECTOR-WAFER
TP2		FW-0640-2 2.5mm WHT
CW302	KNCW-00240-2T9	CONNECTOR-WAFER
CW303		53014-02 2.0mm WHT
CW906	KNCW-00240-4T9	CONNECTOR-WAFER
		53014-04 2.0mm WHT
X101	KTAL-00041-072	CRYSTAL
		HC-49/U 7.200000MHz
X501	KTRE-00220-080	RESONATOR
		CST8.00MTW-TF01
	LUBA-24141-110	WIRE-ASS'Y
		UL1007#24 BLK-140
PCB1	PCSR-03080-11B	PCB-SINGLE
		A1R-308 247 x 247 x 1.6t
R411	RCFT-E100J-000	RESISTOR-CARBON FILM
		10ohm 1/5W 5% T
R111	RCFT-E101J-000	RESISTOR-CARBON FILM
R169		100ohm 1/5W 5% T
R175		
R176		
R177		
R406		
R413		
R419		
R520		
R525		
R101	RCFT-E102J-000	RESISTOR-CARBON FILM
R131		1Kohm 1/5W 5% T
R132		
R143		
R146		
R149		
R151		
R156		
R510		
R523		
R530		
R532		
R533		
R541		
R544		
R550		
R551		
R552		
R115	RCFT-E103J-000	RESISTOR-CARBON FILM
R116		10Kohm 1/5W 5% T
R152		
R153		
R154		
R157		
R158		
R159		
R213		
R214		
R217		
R537		
R540		
R549		
R564		
R565		
R566		
R102	RCFT-E104J-000	RESISTOR-CARBON FILM
R133		100Kohm 1/5W 5% T
R134		
R141		
R144		
R145		
R171		
R173		
R181		
R182		
R221		
R409		
R418		
R524		
R527		
R531		
R547		
R123	RCFT-E114J-000	RESISTOR-CARBON FILM
R127		110Kohm 1/5W 5% T
R517	RCFT-E105J-000	RESISTOR-CARBON FILM
		1Mohm 1/5W 5% T
R407	RCFT-E122J-000	RESISTOR-CARBON FILM
R408		1.2Kohm 1/5W 5% T
R412		
R414		
R410	RCFT-E123J-000	RESISTOR-CARBON FILM
R416		12Kohm 1/5W 5% T
R548	RCFT-E124J-000	RESISTOR-CARBON FILM
		120Kohm 1/5W 5% T
R405	RCFT-E131J-000	RESISTOR-CARBON FILM
R415		130ohm 1/5W 5% T
R139	RCFT-E151J-000	RESISTOR-CARBON FILM
R546		150ohm 1/5W 5% T
R113	RCFT-E152J-000	RESISTOR-CARBON FILM
R433		1.5Kohm 1/5W 5% T
R434		
R103	RCFT-E154J-000	RESISTOR-CARBON FILM
		150Kohm 1/5W 5% T
R505	RCFT-E183J-000	RESISTOR-CARBON FILM
		18Kohm 1/5W 5% T
R515	RCFT-E184J-000	RESISTOR-CARBON FILM
R516		180Kohm 1/5W 5% T
R536	RCFT-E203J-000	RESISTOR-CARBON FILM
R538		20Kohm 1/5W 5% T
R539		
R543		
R119	RCFT-E220J-000	RESISTOR-CARBON FILM
R150		22ohm 1/5W 5% T
R104	RCFT-E221J-000	RESISTOR-CARBON FILM
R112		220ohm 1/5W 5% T
R140		
R501		
R502		
R518		
R526		
R117	RCFT-E222J-000	RESISTOR-CARBON FILM
R522		2.2Kohm 1/5W 5% T
R529		
R506	RCFT-E223J-000	RESISTOR-CARBON FILM
R507		22Kohm 1/5W 5% T
R574		

Ref. No.	Part No.	Description
R575		
R137	RCFT-E224J-000	RESISTOR-CARBON FILM
R138		220Kohm 1/5W 5% T
R218	RCFT-E271J-000	RESISTOR-CARBON FILM
		270ohm 1/5W 5% T
R220	RCFT-E272J-000	RESISTOR-CARBON FILM
		2.7Kohm 1/5W 5% T
R109	RCFT-E331J-000	RESISTOR-CARBON FILM
		330ohm 1/5W 5% T
R107	RCFT-E332J-000	RESISTOR-CARBON FILM
R124		3.3Kohm 1/5W 5% T
R128		
R142		
R179		
R556		
R534	RCFT-E334J-000	RESISTOR-CARBON FILM
		330Kohm 1/5W 5% T
R118	RCFT-E363J-000	RESISTOR-CARBON FILM
		36Kohm 1/5W 5% T
R165	RCFT-E391J-000	RESISTOR-CARBON FILM
		390ohm 1/5W 5% T
R570	RCFT-E392J-000	RESISTOR-CARBON FILM
R573		3.9Kohm 1/5W 5% T
R509	RCFT-E393J-000	RESISTOR-CARBON FILM
		39Kohm 1/5W 5% T
R571	RCFT-E470J-000	RESISTOR-CARBON FILM
		47ohm 1/5W 5% T
R212	RCFT-E471J-000	RESISTOR-CARBON FILM
R215		470ohm 1/5W 5% T
R219		
R431		
R432		
R535		
R545		
R110	RCFT-E472J-000	RESISTOR-CARBON FILM
R216		4.7Kohm 1/5W 5% T
R511		
R513		
R521		
R528		
R136	RCFT-E473J-000	RESISTOR-CARBON FILM
R147		47Kohm 1/5W 5% T
R148		
R155		
R172		
R519		
R553		
R555		
R508	RCFT-E512J-000	RESISTOR-CARBON FILM
		5.1Kohm 1/5W 5% T
R105	RCFT-E561J-000	RESISTOR-CARBON FILM
R106		560ohm 1/5W 5% T
R108		
R210	RCFT-E562J-000	RESISTOR-CARBON FILM
R211		5.6Kohm 1/5W 5% T
R135	RCFT-E623J-000	RESISTOR-CARBON FILM
		62Kohm 1/5W 5% T
R121	RCFT-E680J-000	RESISTOR-CARBON FILM
		68ohm 1/5W 5% T
R108	RCFT-E681J-000	RESISTOR-CARBON FILM
		680ohm 1/5W 5% T
R114	RCFT-E682J-000	RESISTOR-CARBON FILM
		6.8Kohm 1/5W 5% T
R160	RCFT-E683J-000	RESISTOR-CARBON FILM
R161		68Kohm 1/5W 5% T
R162		
R401	RCFT-E750J-000	RESISTOR-CARBON FILM
R403		75ohm 1/5W 5% T
R404		
R417	RCFT-E822J-000	RESISTOR-CARBON FILM
R420		8.2Kohm 1/5W 5% T
R125	RCFT-E823J-000	RESISTOR-CARBON FILM
R126		82Kohm 1/5W 5% T
R542	RCFT-E912J-000	RESISTOR-CARBON FILM
		9.1Kohm 1/5W 5% T
R512	RCFT-F150J-000	RESISTOR-CARBON FILM
R514		15ohm 1/4W 5% T
R572	RCFT-F4R7J-010	RESISTOR-CARBON FILM
		4.7ohm 1/4W 5% T
JK402	SKRC-00401-041	SOCKET-RCA
		JK0400451N
JK401	SKRC-00470-031	SOCKET-RCA
		JC0300125N 3P
AT101	TEAT-00051-03R	TERMINAL ANTENNA
		AK1/2-1058A
Q109	TRTA-0008G-SD0	TRANSISTOR P-H FREQ
Q110		KTA1266-GR TO92
Q111		
Q121		
Q404	TRTA-0008Y-SD0	TRANSISTOR P-H FREQ
Q402		KTA1266-Y TO92
Q114	TRTA-0040Y-SOS	TRANSISTOR P-H FREQ
Q116		DTA114Y-S W/RESIST TO92M
Q503		
Q504		
Q101	TRTC-0010Y-SD0	TRANSISTOR N-H FREQ
		KTC1923-Y TO92
Q107	TRTC-0016G-SD0	TRANSISTOR N-H FREQ
Q108		KTC3198-GR TO92
Q123		
Q403	TRTC-0016Y-SD0	TRANSISTOR N-H FREQ
Q405		KTC3198-Y TO92
Q501		
Q502		
Q510	TRTC-0034Y-SOS	TRANSISTOR N-H FREQ
Q511		DTC114Y-S TO92
Q122	TRTC-0039Y-SD0	TRANSISTOR N-H FREQ
		KTC3205-Y TO92L
Q102	TRTD-00200-SD0	TRANSISTOR N-H FREQ
Q103		KTD-1302 TO92
Q119		
Q120		
Q505		
Q506		
Q508		
Q509		
Q512		
Q513		
Q104	TRTK-0003G-SD0	FET N-CHANNEL
		KTK161-GR TO92M
FE101	TUFF-00160-00D	FRONT-END
		FTH4-560V FTZ

Ref. No.	Part No.	Description
CH306	UM08-60358-008	WIRE ASS'Y 1007#26 × 2, 1533#28 × 2-300
TC101	VCTC-00022-300	TRIMMER
TC102		CVCN06C300
VR103	VFEB-A001B-204	RESISTOR-SEMI FIXED EVN DXA A03 B25 200Kohm
VR502	VFEB-A001B-222	RESISTOR-SEMI FIXED EVN DXA A03 BE3 2.2Kohm
VR102	VFEB-A001B-223	RESISTOR-SEMI FIXED EVN DXA A03 BE4 22Kohm
VR101	VFEB-A001B-472	RESISTOR-SEMI FIXED EVN DXA A03 BQ3 4.7Kohm

6. ASS'Y SUB

Ref. No.	Part No.	Description
1	ZBNG-00400-0ZL	BOND-ADHESIVE SC-306
2	ZBNG-00700-4ZL	BOND-ADHESIVE #575
3	ZBNG-01300-5ZL	LOCKER-SCREW #1401B
4	ZGSI-01000-9PN	GREASE-SILICON G-746
5	ZSBR-00010-060	SOLDER-BAR SN60
6	ZSWR-00010-F60	SOLDER-WIRE D1.0 SN60
7	ZTOP-00701-50C	TAPE-OPP
8	ZTPR-00900-A5C	TAPE-PROTECTOR #532 150 × 200mm
9	ZTWF-01200-039	TAPE-DOUBLE FACE TESA 4968 W = 3.0 t = 0.32
10	ZZFX-00010-000	FLUX ROSIN 28
11	ZZTH-00010-000	DILUENT ROSIN
12	ZUVO-82001-151	TUBE-INSULATION R8.25U.C BLK-15

7. CORD-AC ASS'Y

Ref. No.	Part No.	Description
1	KDAC-0230F-6N8	CORD-AC KKP419C KLCE-2F 075 CE
2	KNCH-00360-3T9	CONNECTOR-HOUSING YH396-03V 3.96mm 3P
3	KNCT-00020-1TS	CONNECTOR-TERMINAL YT396 1P

8. ASS'Y PRINT

Ref. No.	Part No.	Description
1	YLAR-E1005-06B	LABEL-B SET LABEL (FUSE)

[REMOTE CONTROL] A2RA-F2000-01Z

1. ASS'Y MAIN PCB

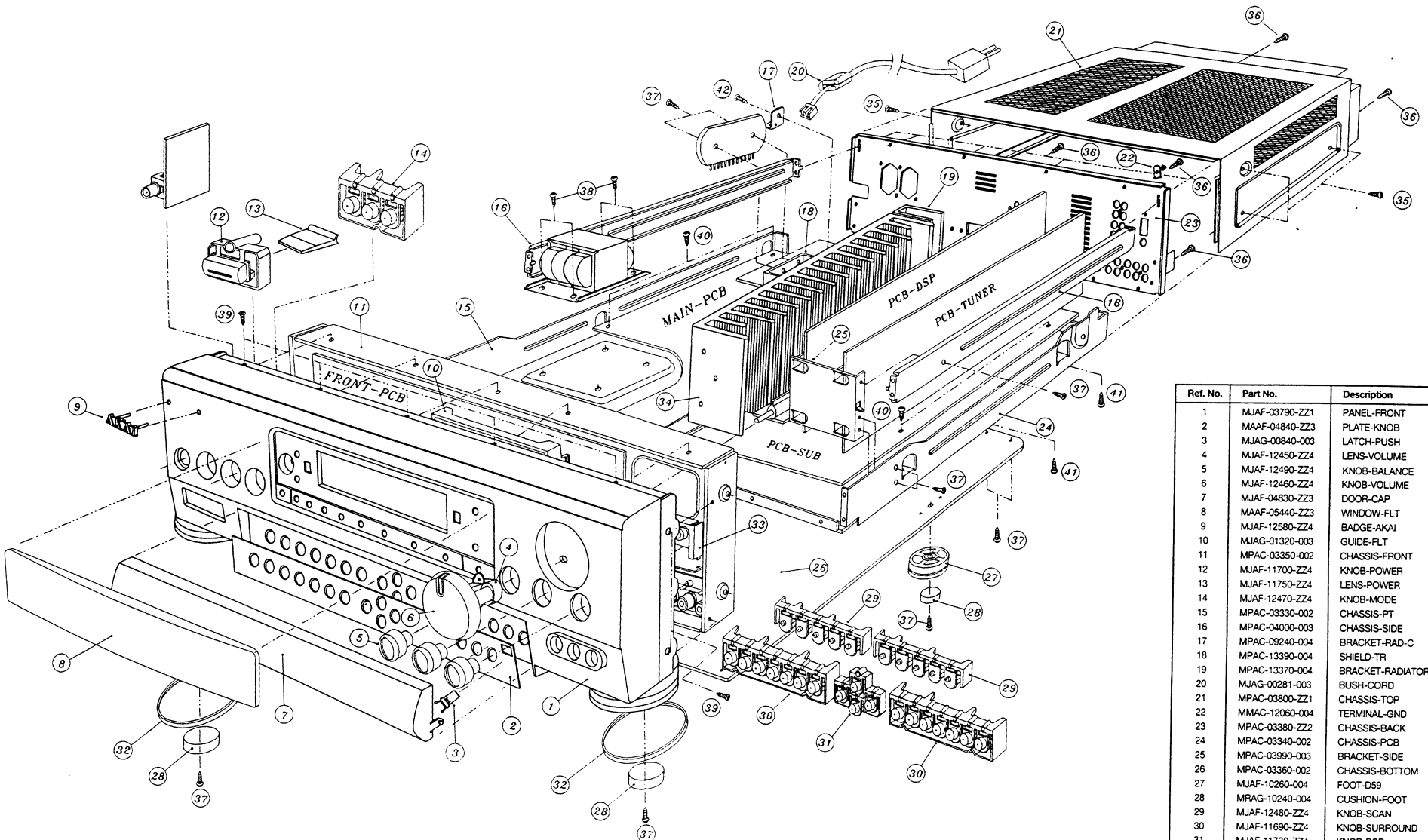
Ref. No.	Part No.	Description
1	CEET-C470M-CE0	CAPACITOR E/ALUMINUM 47㎌ M 6.3V 5 × 7 T
2	DPIR-00021-005	DOT-IR-LED KLN105B-B
3	ICMP-01290-SO0	IC UCOMPUTER BU2478-36
4	KTRE-00271-004	RESONATOR ZTB455ET2 L-TYPE
5	MMAC-11071-004	ASS'Y-BATTERY
6	MPAC-09360-004	TERMINAL-CHARGE + −
7	PCSE-02220-41B	PCB-SINGLE A4E-222
8	RCFT-E2R2J-000	RESISTOR-CARBON FILM 2.2ohm 1/5W 5% T
9	RCFT-E224J-000	RESISTOR-CARBON FILM 220Kohm 1/5W 5% T
10	TRTC-0016G-SD0	TRANSISTOR N-H FREQ KTC3198-GR TO92

2. ASS'Y MECHANISM

Ref. No.	Part No.	Description
MJ001	MJAF-01340-ZZ2	COVER-UPPER
MJ002	MJAF-01350-ZZ2	COVER-BOTTOM
MJ003	MJAF-02860-ZZ3	COVER-BATTERY
ML001	MLAC-09372-ZZ4	PLATE-NAME
MM001	MMAC-11060-004	BATTERY-SPRING
MR001	MRAF-01362-ZZ2	PAD-KEY
XS001	XSTP-25060-ZY4	SCREW-TAPPING PHT2T 2.5 × 6 FE-ZY
YS001	YSAP-09860-004	CUSHION-BATTERY
YV001	YVAP-09640-004	POLY-BAG
	BAMN-AAM00-150	BATTERY MANGANESE R6P 1.5V 14.5 × 50.5

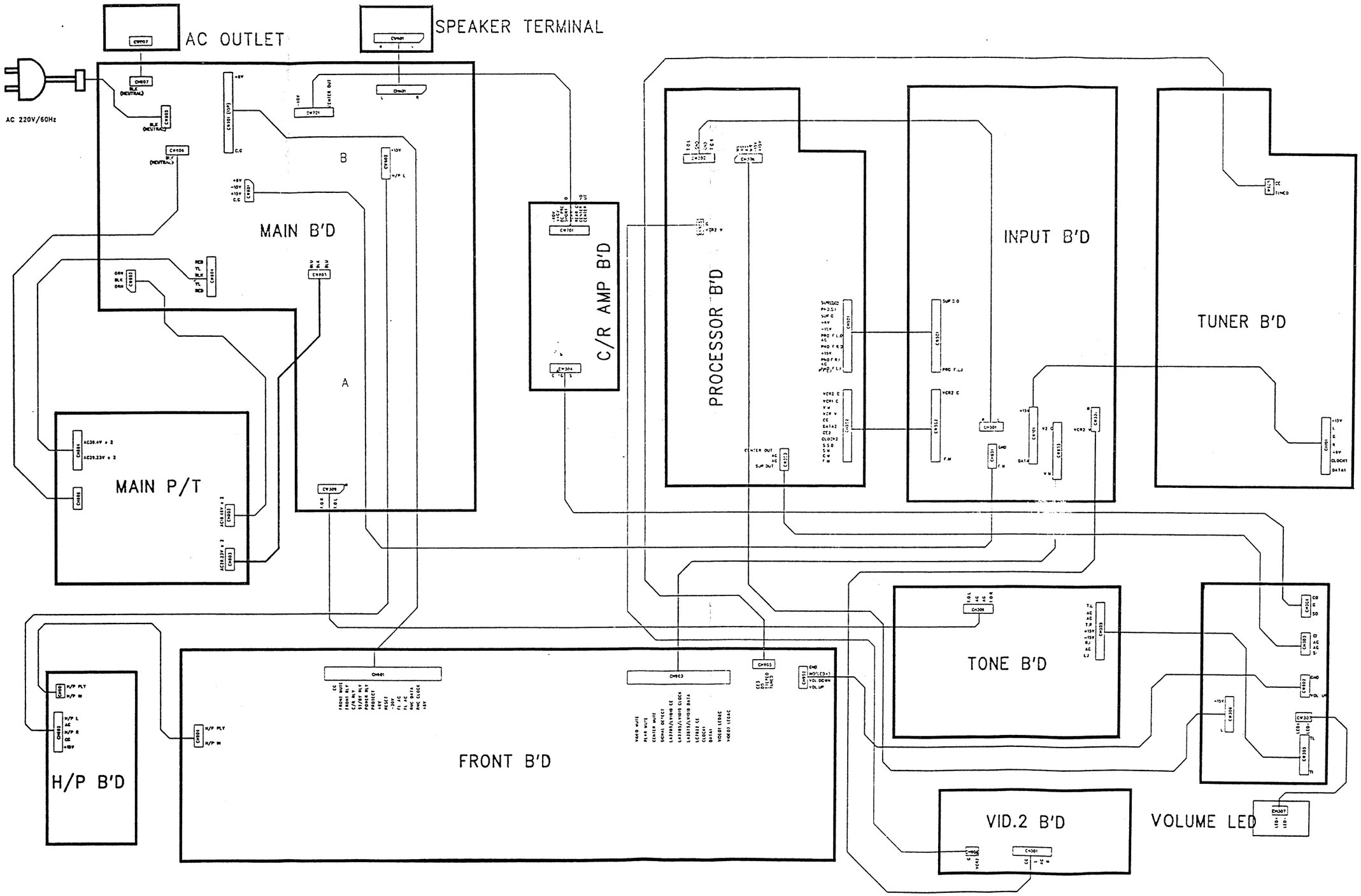
EXPLODED VIEW

9. AMP FINAL ASSEMBLY

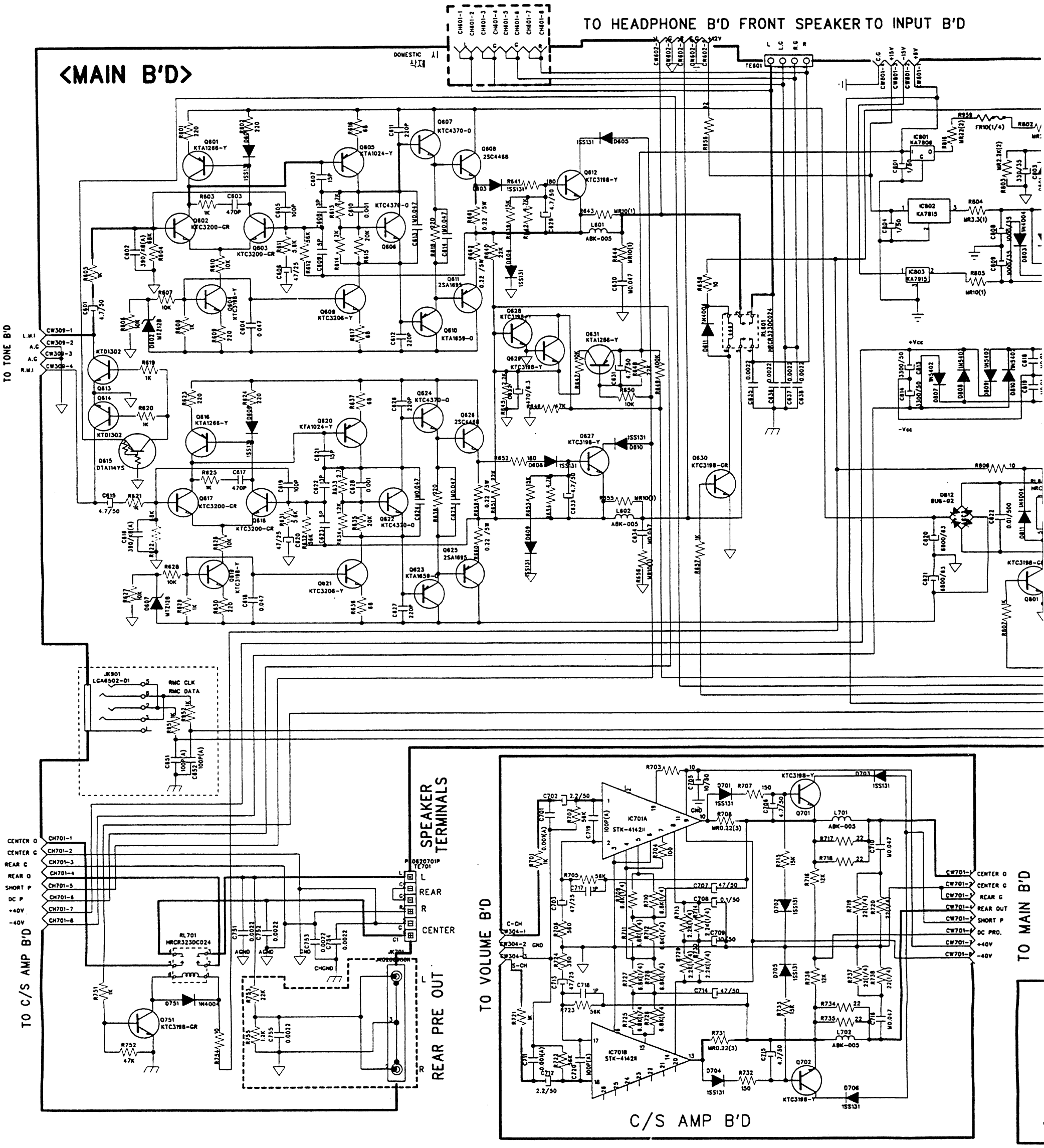


Ref. No.	Part No.	Description
1	MJAF-03790-ZZ1	PANEL-FRONT
2	MAAF-04840-ZZ3	PLATE-KNOB
3	MJAG-00840-003	LATCH-PUSH
4	MJAF-12450-ZZ4	LENS-VOLUME
5	MJAF-12490-ZZ4	KNOB-BALANCE
6	MJAF-12460-ZZ4	KNOB-VOLUME
7	MJAF-04830-ZZ3	DOOR-CAP
8	MAAF-05440-ZZ3	WINDOW-FLT
9	MJAF-12580-ZZ4	BADGE-AKAI
10	MJAG-01320-003	GUIDE-FLT
11	MPAC-03350-002	CHASSIS-FRONT
12	MJAF-11700-ZZ4	KNOB-POWER
13	MJAF-11750-ZZ4	LENS-POWER
14	MJAF-12470-ZZ4	KNOB-MODE
15	MPAC-03330-002	CHASSIS-PT
16	MPAC-04000-003	CHASSIS-SIDE
17	MPAC-09240-004	BRACKET-RAD-C
18	MPAC-13390-004	SHIELD-TR
19	MPAC-13370-004	BRACKET-RADIATOR
20	MJAG-00281-003	BUSH-CORD
21	MPAC-03800-ZZ1	CHASSIS-TOP
22	MMAC-12060-004	TERMINAL-GND
23	MPAC-03380-ZZ2	CHASSIS-BACK
24	MPAC-03340-002	CHASSIS-PCB
25	MPAC-03990-003	BRACKET-SIDE
26	MPAC-03360-002	CHASSIS-BOTTOM
27	MJAF-10260-004	FOOT-D59
28	MRAG-10240-004	CUSHION-FOOT
29	MJAF-12480-ZZ4	KNOB-SCAN
30	MJAF-11690-ZZ4	KNOB-SURROUND
31	MJAF-11730-ZZ4	KNOB-DSP
32	MMAC-13040-ZZ4	RING-FOOT
33	MPAC-13380-004	SHIELD-JACK
34	MEAC-03320-002	RADIATOR-MAIN
35	XSTB-40080-ZB4	SCREW-TAPPING
36	XSTB-30120-ZB4	SCREW-TAPPING
37	XSTB-30100-ZY4	SCREW-TAPPING
38	XSTB-40080-ZY4	SCREW-TAPPING
39	XSTB-30080-ZY4	SCREW-TAPPING
40	XSTS-30080-ZY4	SCREW-TAPPING
41	XSTB-30120-ZY4	SCREW-TAPPING
42	XSTB-30160-ZY4	SCREW-TAPPING

V. WIRING DIAGRAM



VII. SCHEMATIC DIAGRAM/ MAIN



FUSE

	DOMESTIC	EUROPE
F801	SB1A /250V	T1A/250V
F802	SB1A /250V	T1A/250V
F803	SB3.15A /250V	T3.15A /250V
F804	SB3.15A /250V	T3.15A /250V
F805	SB3.15A /250V	T3.15A /250V
F806	JW246	T1A /250V

MAIN P/T

BUYER	VOLTAGE	P/T NO
CHINA	110V/60Hz	A96-245B-0
AMERICA	120V/60Hz	A96-245C-U
KOREA	220V/60Hz	A96-245X-K
EUROPE	230V/50Hz	A96-245Y-V
AUSTRALIAR	240V/50Hz	A96-245Z-A

STANDBY P/T

BUYER	VOLTAGE	P/T NO
CHINA	110V/60Hz	A41-238B-0
AMERICA	120V/60Hz	A41-238C-U
KOREA	220V/60Hz	A41-238X-K
EUROPE	230V/50Hz	A41-238Y-V
AUSTRALIAR	240V/50Hz	A41-238Z-A

TO INPUT B'D
TO MAIN P/T
TONE B'D
TO VOLUME B'D
TO MAIN P/T
TO MAIN B'D
TO AC OUTLET
TO AC CORD
AC-CORD-3A/250V
TO FRONT B'D
VOLUME LED B'D
TO VOLUME B'D
TO SUR PROCESSOR B'D
TO C/S AMP B'D
TO SUR PROCESSOR B'D
TO MAIN B'D
VOLUME B'D
TO VOLUME LED B'D
TO TONE B'D
TO FRONT B'D
TO INPUT B'D
VIDEO2 FRONT B'D
HEAD PHONE B'D
TO SUR PROCESSOR B'D
TO FRONT B'D

SCHEMATIC DIAGRAM/FRONT

AUDIO **FRONT B'D(2)**

FRONT B'D(1)

TO VOLUME B'D

TO SUR.PROCESSOR B'D

TO VIDEO FRONT B'D

TO TUNER B'D

TO MAIN B'D

TO FRONT B'D

TO MAIN B'D

OPTION

FRONT SPI

TO INPUT B'D

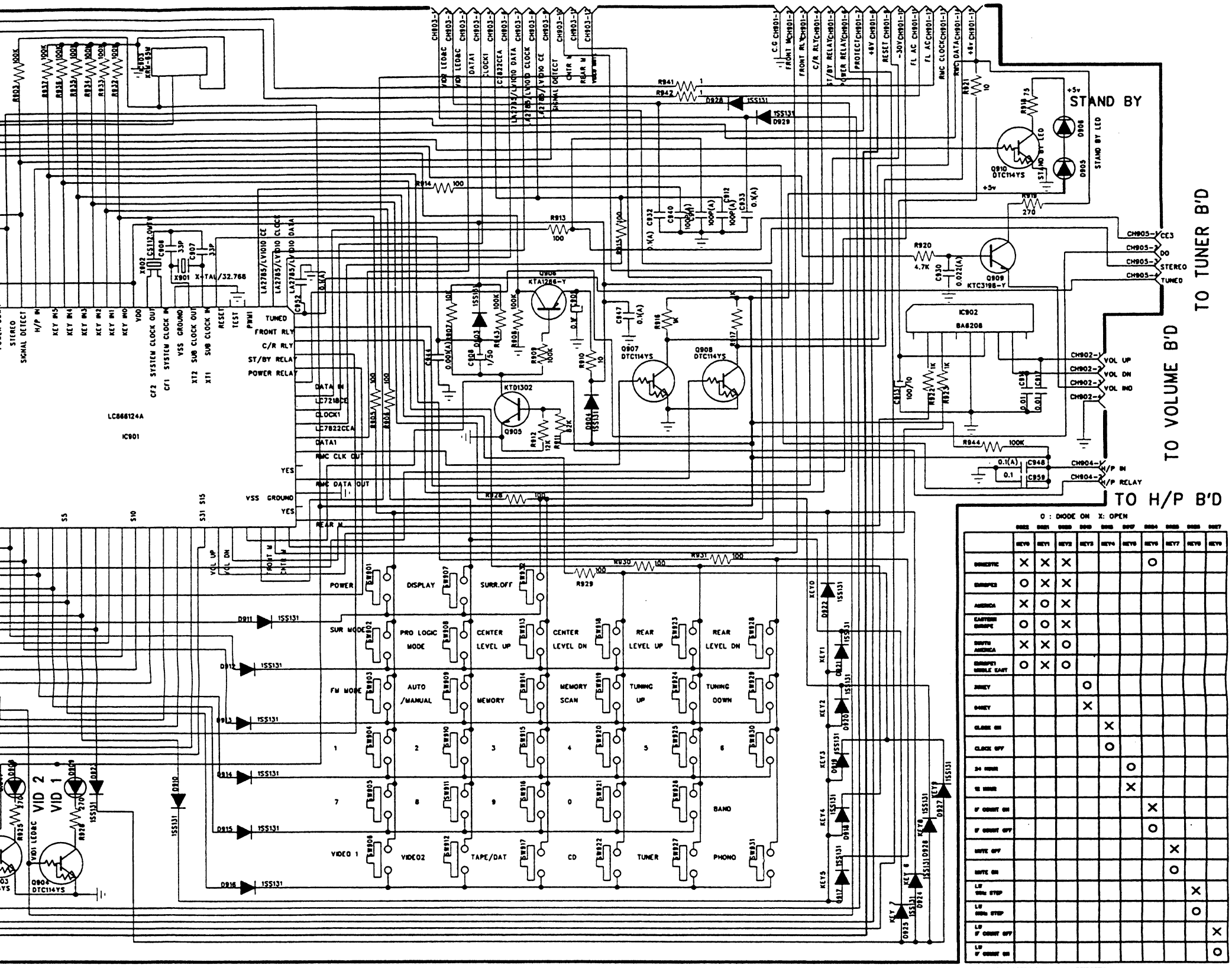
TO MAIN B'D

TO MAIN B'D

TO TUNER B'D

TO VOLUME B'D

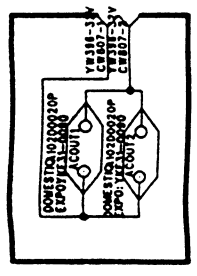
TO H/P B'D



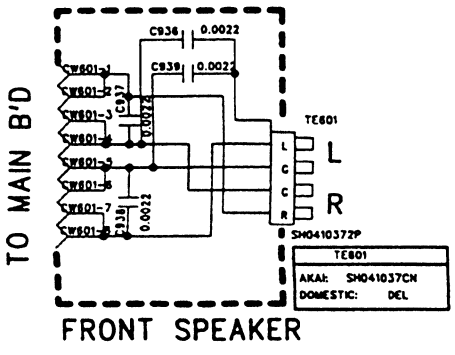
0 : DIODE ON X: OPEN									
	KEY0	KEY1	KEY2	KEY3	KEY4	KEY5	KEY6	KEY7	KEY8	KEY9
DOMESTIC	X	X	X				O			
EUROPE	O	X	X							
AMERICA	X	O	X							
EASTERN EUROPE	O	O	X							
SOUTH AMERICA	X	X	O							
EUROPE/ MIDDLE EAST	O	X	O							
3KEY				O						
6KEY				X						
CLOCK ON					X					
CLOCK OFF					O					
24 HOUR						O				
12 HOUR						X				
9" COUNT ON							X			
9" COUNT OFF							O			
MUTE OFF								X		
MUTE ON								O		
LO 100k STEP									X	
LO 50k STEP									O	
LO 9" COUNT OFF										X
LO 9" COUNT ON										O

DOMESTIC:	D824	2BAND :	D818
3BAND :	D817	ZENDAR	D820
EUROPE	D818		D822
AKAI	D822		D824
	D824		D825
	D825		
2BAND :	D817		
EUROPE	D818		
MAYA	D820		
	D822		
	D824		
	D825		

TO MAIN B'D



OPTION

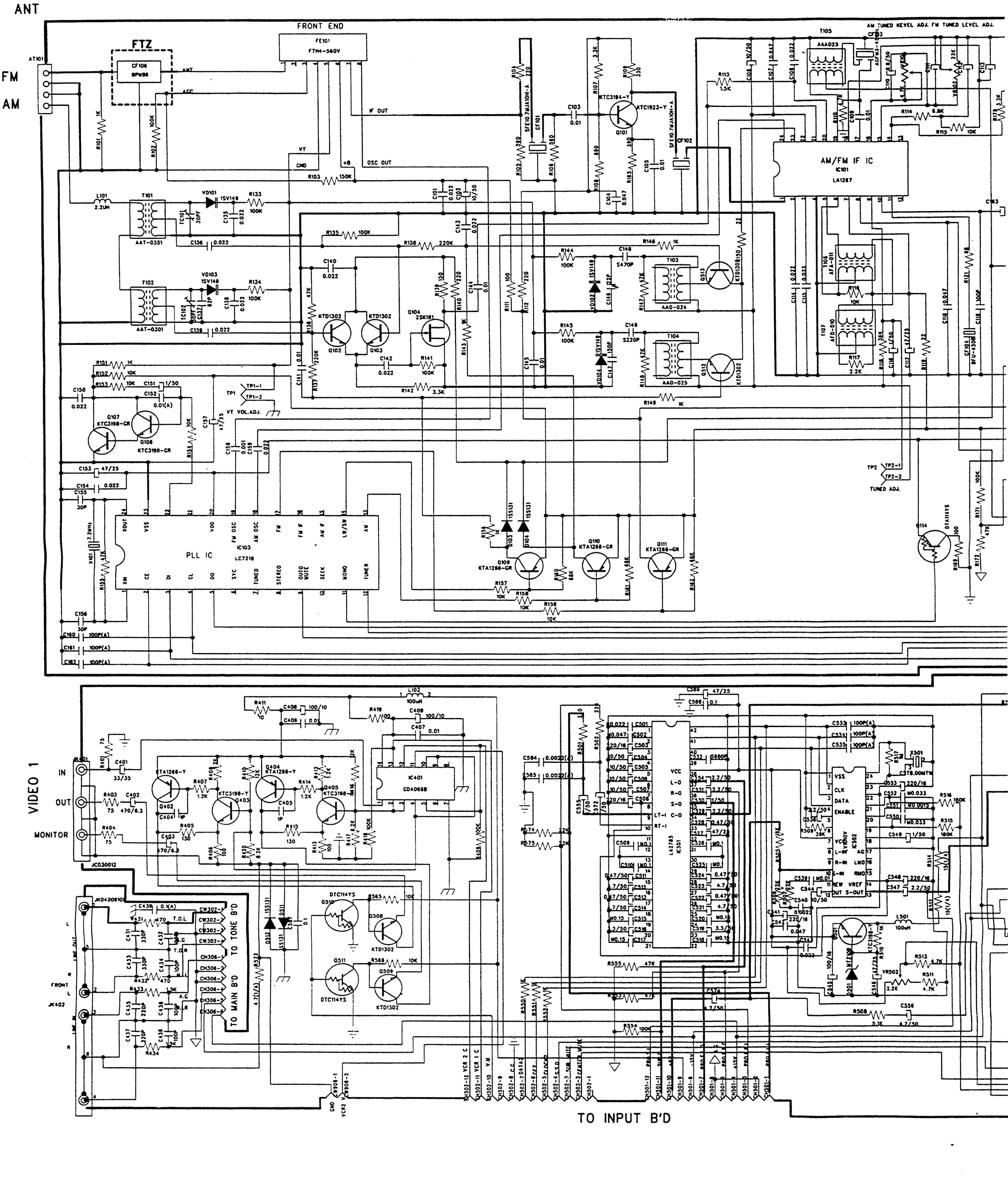


TE601	
AKAI:	SH041037CN
DOMESTIC:	DEL

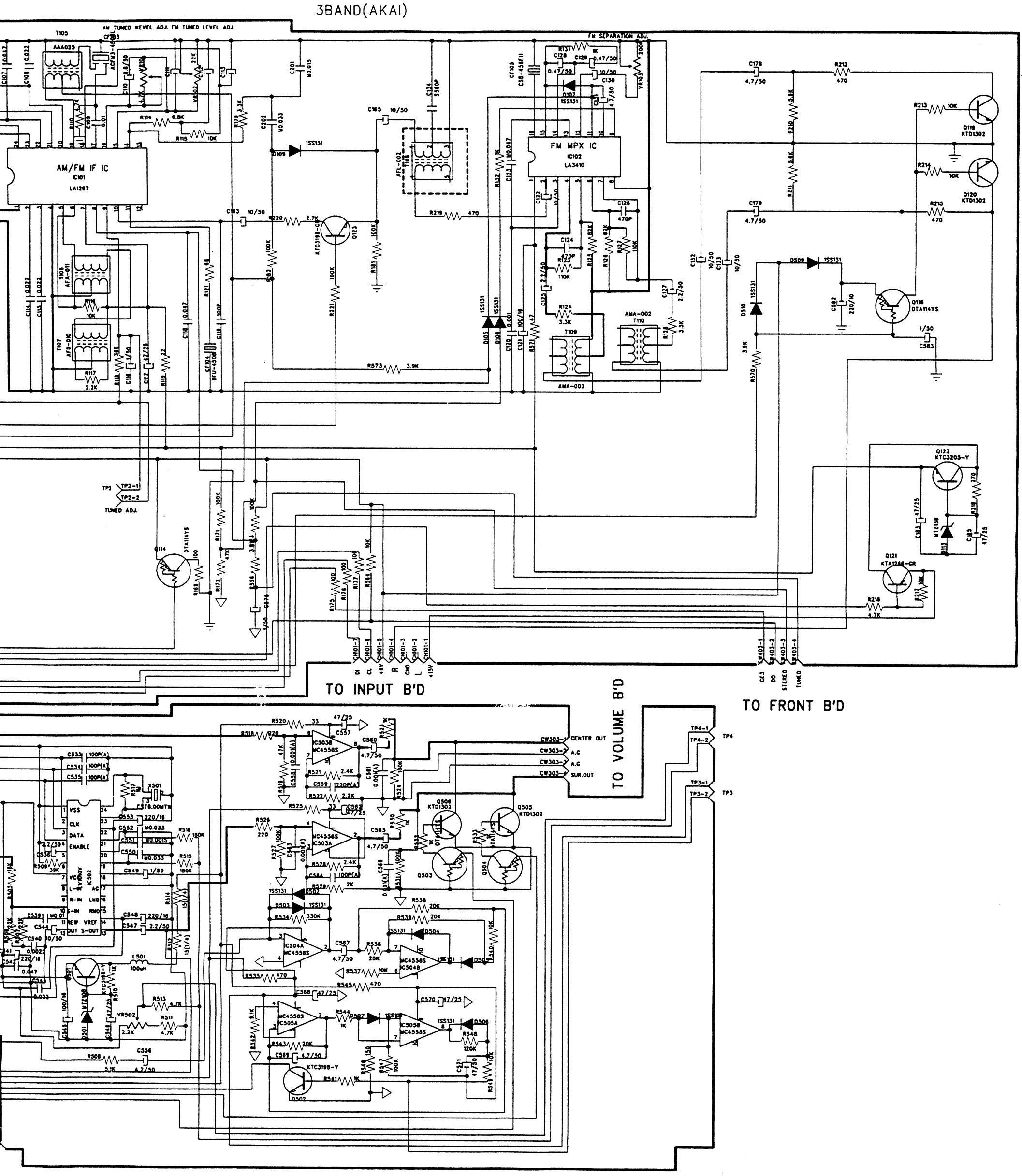
TO MAIN B'D

FRONT SPEAKER

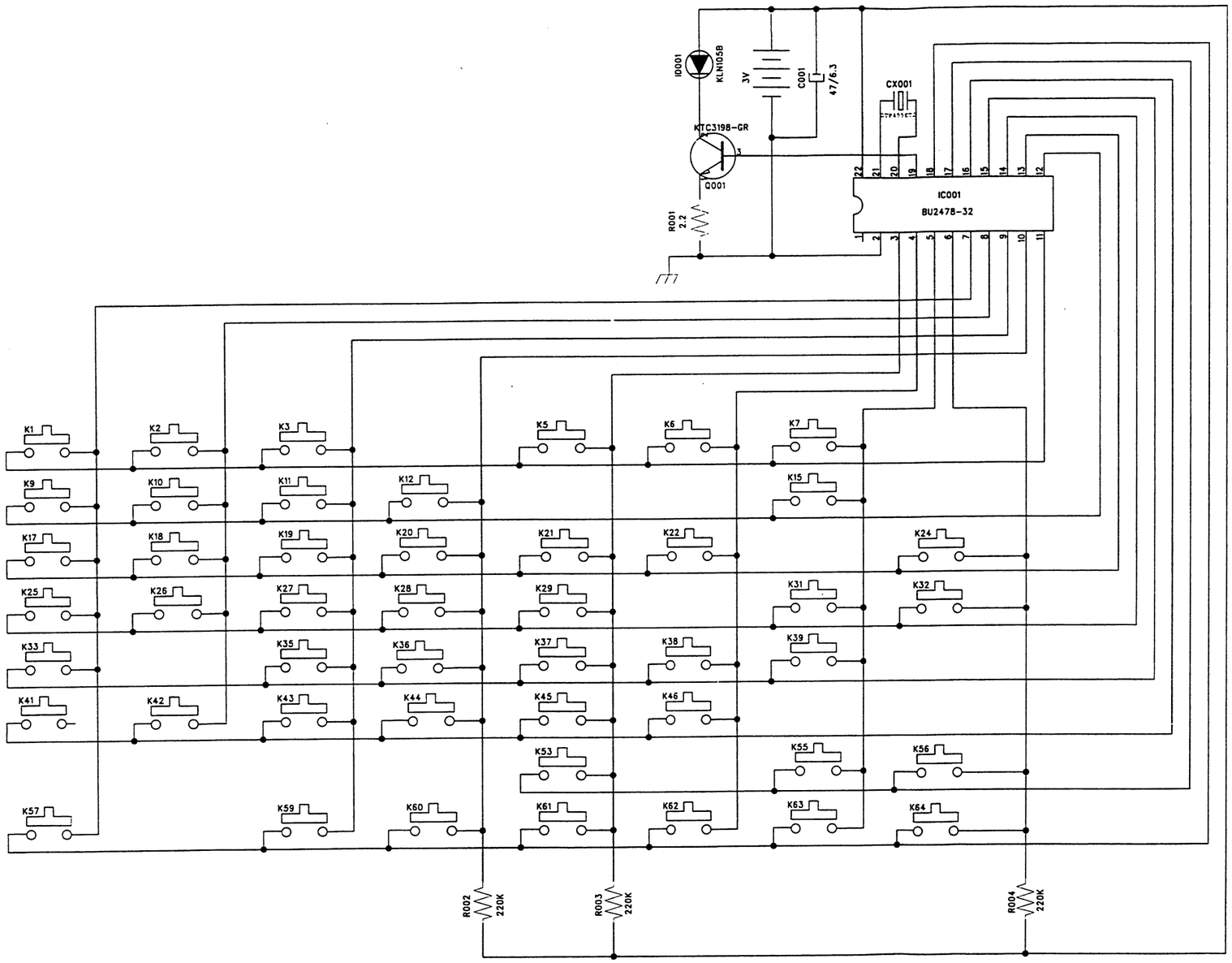
SCHEMATIC DIAGRAM/TUNER



3BAND(AKAI)

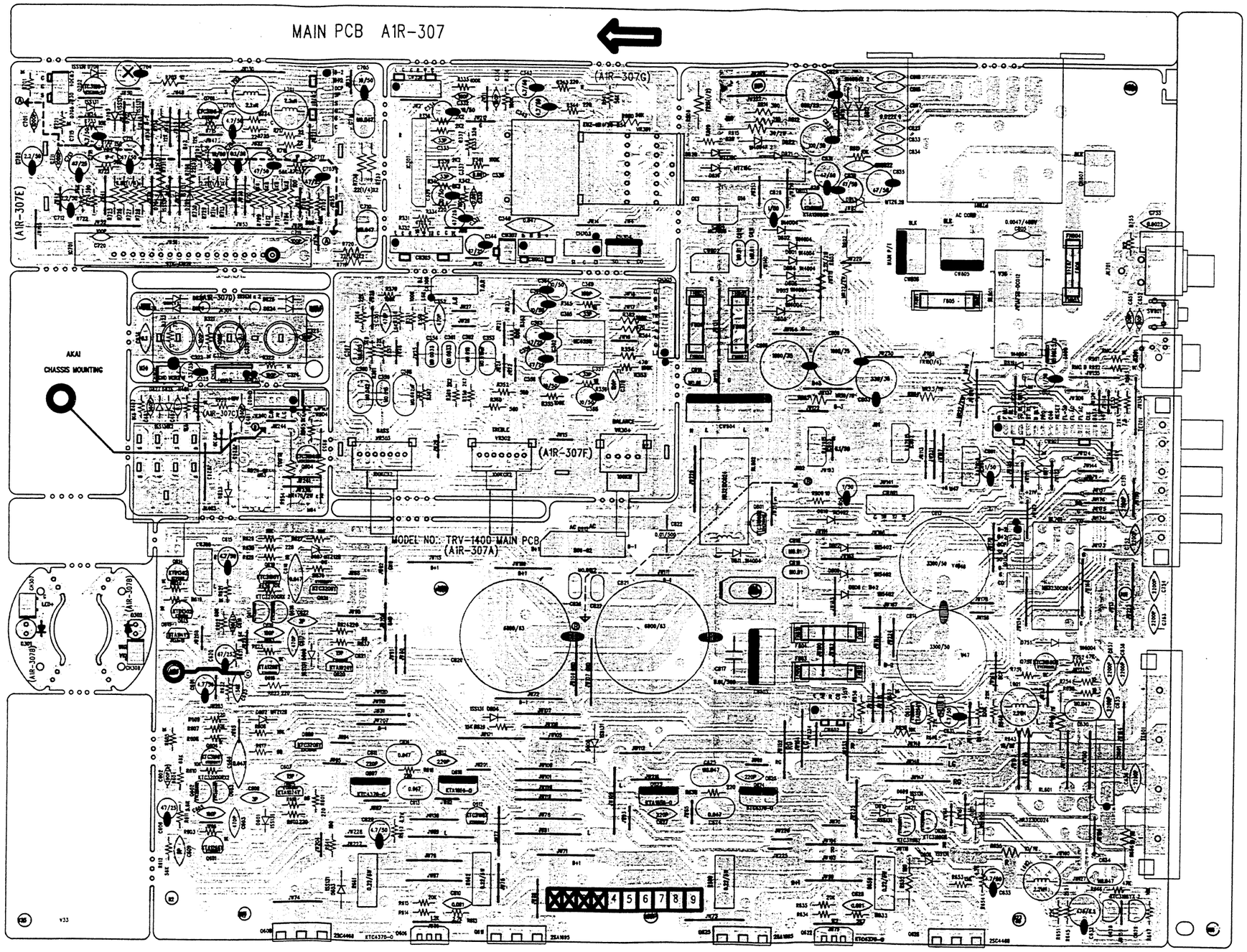

AM TUNED KEVEL ADJ. FM TUNED LEVEL ADJ.
FM SEPARATION ADJ.
T105
AAA029
CF103
ACFM3-450L
AM/FM IF IC
IC101
LA1267
FM MPX IC
IC102
LA3410
1SS131
D109
D107
1SS131
AFT-002
T108
AMA-002
T110
T109
AMA-002
Q116
DTA114YS
Q118
KTD1302
Q120
KTD1302
Q122
KTC3205-Y
Q121
KTA1266-GR
Q114
DTA114YS
KTC3198-GR
Q123
KTC3198-Y
Q502
TP2
TP2-1
TP2-2
TUNED ADJ.
CH101-7
CH101-8
CH101-5
CH101-4
CH101-3
CH101-2
CH101-1
DI
CL
+8V
R
GND
L
+15V
CN103-1
CN103-2
CN103-3
CN103-4
CE3
DO
STEREO
TUNED
TO INPUT B'D
TO FRONT B'D
TO VOLUME B'D
IC501
MC1008
IC502
LC7220V
IC503
MC4558S
IC504
MC4558S
IC505
MC4558S
X501
CST6.00MTW
L501
100uH
CW303-1
CW303-2
CW303-3
CW303-4
CENTER OUT
A.G
A.G
SUR.OUT
TP4-1
TP4-2
TP4
TP3-1
TP3-2
TP3

SCHEMATIC DIAGRAM/REMOTE



KEY NO	FUNCTION	KEY NO	FUNCTION
K1	CD STOP	K33	PRESET #1
K2	TNNER	K34	
K3	PRESET #6	K35	II DECK FFWD
K4		K36	PRESET #9
K5	TAPE/DAT	K37	PRESET #2
K6	CD PLAY/PAUSE	K38	PRESET #0
K7	+10	K39	I DECK FFWD
K8		K40	
K9	VOLUME DOWN	K41	SURR.MODE (TIME ADJ.)
K10	PHONO	K42	SURROUND ON/OFF
K11	PRESET UP	K43	VOLUME UP
K12	PRESET DOWN	K44	VIDEO1
K13		K45	REAR UP(MINUTE)
K14		K46	REAR DOWN(HOUR)
K15	DECK REC MUTE	K47	
K16		K48	
K17	POWER MUTE	K49	
K18	VIDEO2	K50	
K19	DISPLAY	K51	
K20	PRO LOGIC MODE(ONCE/EVERY)	K52	
K21	SEARCH ▷▷	K53	PRESET #7
K22	CENTER UP	K54	
K23		K55	I DECK RWD
K24	CENTER DOWN	K56	II DECK RWD
K25	POWER ON/OFF	K57	PRESET #8
K26	CD	K58	
K27	TEST TONE	K59	II DECK ◁
K28	I DEC PLAY ▷	K60	I DECK ◁
K29	SEARCH ◁◁	K61	II DECK STOP
K30		K62	PRESET #3
K31	PRESET #5	K63	II DECK ▷
K32	PRESET #4	K64	I DECK STOP

VIII. PCB LAYOUT/MAIN

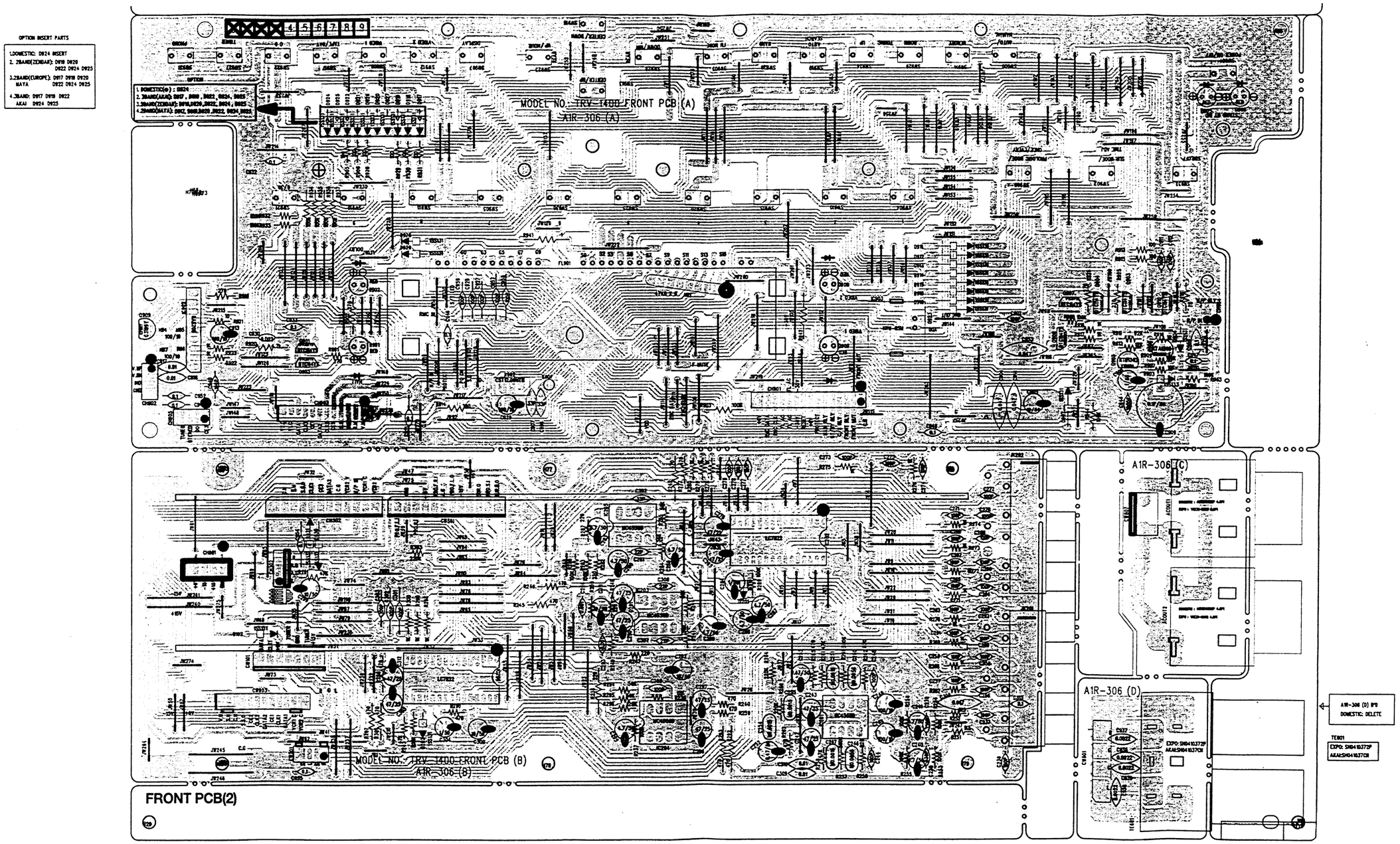


	F805	C805
DOMESTIC	FUFB-5352-337	SCF2G472K(285
EXPO	FUFB-5352-139	SCF2G472K(285
AKAI	FUFB-5352-139	DC7150F472KVA1-KC

1. Ⓐ ⟷ WIRE(P) 140mm ⟷ Ⓐ
2. Ⓑ ⟷ WIRE(P) 120mm ⟷ Ⓑ
3. Ⓒ ⟷ 3.2Φ - WIRE(P) 80mm ⟷ MOUNTING
4. Ⓓ ⟷ 3.2Φ - WIRE(P) 200mm ⟷ MOUNTING (AKAI)

	CH601	TE601
DOMESTIC	×	○
EXPO	○	×

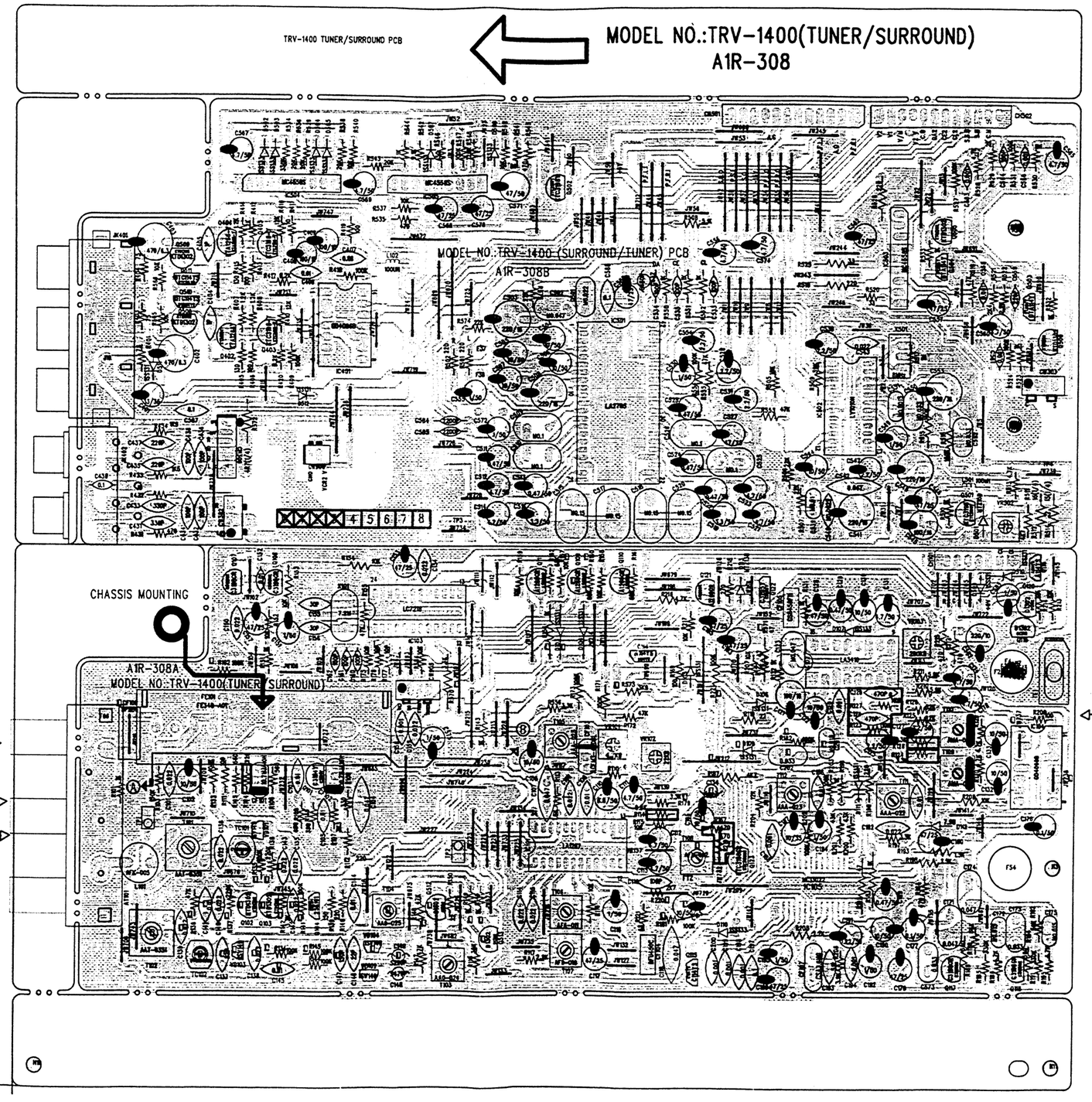
FRONT PCB(1)


OPTION INSERT PARTS
1.DOMESTIC: D924 INSERT
2. 2BAND(ZENDAN): D919 D920 D922 D924 D925
3.2BAND(EUROPE): D917 D918 D920 MAYA D922 D924 D925
4.3BAND: D917 D919 D922 AKAI D924 D925
MODEL NO. TRV-1400 FRONT PCB (A)
A1R-306 (A)
A1R-306 (C)
A1R-306 (D)
A1R-306 (D) B"S DOMESTIC: DELETE
MODEL NO. TRV-1400 FRONT PCB (B)
A1R-306 (B)

FRONT PCB(2)

DELETE PARTS(AXAI)

NO	POSITION	VALUE	NO	POSITION	VALUE
1	C170	47/25	42	JW729	JUMPER
2	C171	MO.047	43	JW732	JUMPER
3	C172	MO.015	44	JW738	JUMPER
4	C173	MO.033	45	JW743	JUMPER
5	C174	MO.047	46	JW745	JUMPER
6	C175	MO.015	47	JW746	JUMPER
7	C176	0.1/50	48	Q115	DTC114YS
8	C177	0.1/50	49	Q117	KTC3198GR
9	C180	47/25	50	Q118	KTC3198GR
10	C181	0.01	51	R122	47
11	C182	0.022	52	R123	4.7K
12	C184	1/50	53	R130	4.7K
13	C186	0.01	54	R187	470
14	C187	10/35	55	R183	1K
15	C188	1000P	56	R184	470
16	C189	0.47/50	57	R185	330K
17	C190	10/50	58	R186	4.7K
18	C191	0.22/50	59	R187	4.7K
19	C192	1/50	60	R188	56K
20	C193	5P	61	R189	560
21	C194	1000P	62	R190	1.5K
22	C195	1/50	63	R191	330K
23	C196	47/25	64	R192	56K
24	C197	0.1	65	R193	1.5K
25	C198	1000P	66	R194	560
26	C199	1000P	67	R195	4.7K
27	C200	5P	68	R196	1K
28	C573	MO.033	69	R197	3.3K
29	CF107	CSA3.88MG	70	R198	220
30	D110	1SS131	71	R199	47
31	D111	1SS131	72	R200	4.3K
32	D112	MTZ7.5B	73	R201	4.3K
33	IC104	GB40868	74	R202	100K
34	IC105	MC13022	75	R203	100K
35	JW110	JUMPER	76	R204	12K
36	JW135	JUMPER	77	R205	2.2K
37	JW141	JUMPER	78	R206	3.3K
38	JW146	JUMPER	79	R207	10K
39	JW147	JUMPER	80	R208	10K
40	JW148	JUMPER	81	R209	100
41	JW681	JUMPER	82	T111	AAA-022
			83	T112	AAA-023



CHANGE PARTS

	FE101
DOMESTIC 2BAND:ZENDAR,MAYA	FE340-A01
3BAND:AKAI	FTH4-560Y

CHANGE PARTS

	R104
3BAND	220
DOMESTIC, ZENDAR	100

CHANGE PARTS

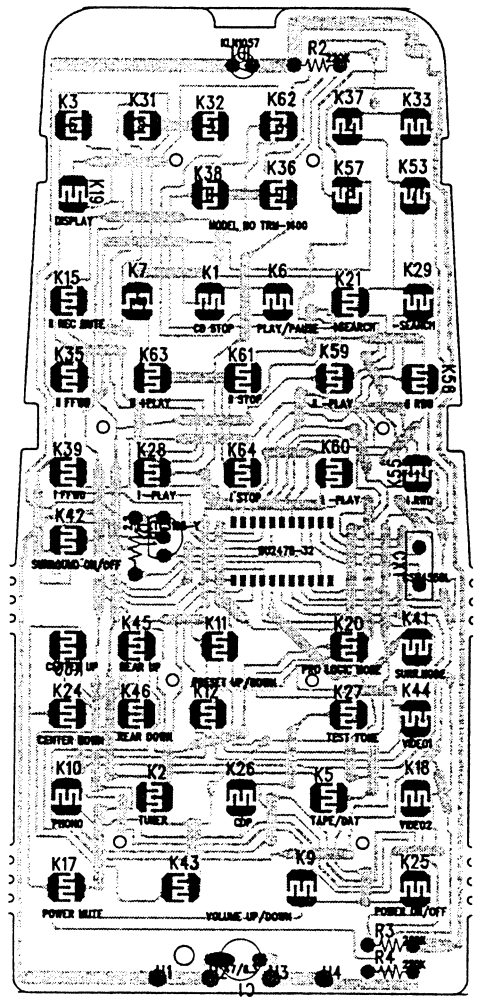
	RT14
3BAND, AKAI	6.8K
DOMESTIC, ZENDAR MAYA	10K

1. Ⓐ ⟷ (WIRE(1P)) ⟷ Ⓑ : ZENDAR,MAYA,AKAI
2. FE101 — MESH WIRE — ◎:CHASSIS MOUNTING(AKAI)

CHANGE PARTS

	R123,R127	C123,C126	R124,R128
DOMESTIC	82K	1000P	2.2K
ZENDAR(2BAND)	110K	680P	3.3K
3BAND(AKAI) MAYA(2BAND)	110K	470P	3.3K

PCB LAYOUT/REMOTE



LC866124A

Pin No	Port Name	I/O	Description	Active
1	DATA	O	LA2785/LV1010 · DATA	H/L
2	CLOCK	O	LA2785/LV1010 · CLOCK	H/L
3	CE	O	LA2785/LV1010 · CE	H/L
4	PWM1	I	NC	
5	NC		TEST PIN. NC	
6	RESET TERMINAL	I	RESET PORT	L
7	SUB CLOCK	O	SUB CLOCK INPUT, 32.768KHz	
8	SUB CLOCK	I	SUB CLOCK OUTPUT, 32.768KHz	
9	VSS		GROUND	
10	SYSTEM CLOCK	I	SYSTEM CLOCK INPUT, 12MHz	
11	SYSTEM CLOCK	O	SYSTEM CLOCK OUTPUT, 12MHz	
12	VDD	I	VDD	
13	KEY IN 0	I	KEY 0	
14	KEY IN 1	I	KEY 1	
15	KEY IN 2	I	KEY 2	
16	KEY IN 3	I	KEY 3	
17	KEY IN 4	I	KEY 4	
18	KEY IN 5	I	KEY 5	
19	H/P IN	I	HEADPHONE INPUT	H
20	SIGNAL DETECTOR	I	REAR LEVEL	L
21	STEREO	I	STEREO	L
22	POWER DOWN	I	POWER DOWN	L
23	PROTECT	I	PROTECT	L
24	RMC IN	O	REMOCON INPUT	
25	VOL IND	O	VOL LED	H
26	NC	O	NC	
27	STANDBY LED	O	STANDBY LED CONTROL	H
28	DOLBY LED	O	DOLBY LED CONTROL	H
29	HALL LED	O	HALL LED CONTROL	H
30	VID2 LED & C	O	VID2 LED CONTROL	H
31	VID1 LED & C	O	VID1 LED CONTROL	H
32	G0	O	VFD DIGIT OUT G0	H
33	G1	O	VFD DIGIT OUT G1	
34	G2	O	VFD DIGIT OUT G2	
35	G3	O	VFD DIGIT OUT G3	
36	G4	O	VFD DIGIT OUT G4	
37	G5	O	VFD DIGIT OUT G5	
38	G6	O	VFD DIGIT OUT G6	
39	G7	O	VFD DIGIT OUT G7	
40	G8	O	VFD DIGIT OUT G8	

Pin No	Port Name	I/O	Description	Active
41	VDD VPP	O	POWER SUPPLY + TERMINAL	
42	VP	O	POWER PIN VFD	
43	SEG 16	O	VFD S0/KEY SCAN OUT 0	
44	SEG 17	O	VFD S1/KEY SCAN OUT 1	
45	SEG 18	O	VFD S2/KEY SCAN OUT 2	
46	SEG 19	O	VFD S3/KEY SCAN OUT 3	
47	SEG 20	O	VFD S4/KEY SCAN OUT 4	
48	SEG 21	O	VFD S5/KEY SCAN OUT 5	
49	SEG 22	O	VFD S6/KEY SCAN OUT 6	
50	SEG 23	O	VFD S7/KEY SCAN OUT 7	
51	SEG 24	O	VFD S8	
52	SEG 25	O	VFD S9	
53	SEG 26	O	VFD S10	
54	SEG 27	O	VFD S11	
55	SEG 28	O	VFD S12	
56	SEG 29	O	VFD S13	
57	SEG 30	O	VFD S14	
58	SEG 31	O	VFD S15	
59	VOL UP	O	MOTOR VOL UP	H
60	VOL DOWN	O	MOTOR VOL DOWN	H
61	H/P RELAY	O	H/P RELAY	H
62	VIDEO M	O	VIDEO MUTE	H
63	FRONT M	O	FRONT MUTE	H
64	CENTER M	O	CENTER MUTE	H
65	REAR M	O	REAR MUTE	H
66	NC		NC	
67	VSS		GROUND	
68	RMC DATA OUT	O	RMC DATA OUT	H/L
69	NC	O	NC	
70	RMC CLK OUT	O	RMC CLOCK OUT	H/L
71	DATA 1	O	LC7822/LC7218	H/L
72	CE2	O	LC7822 CHIP ENABLE	H/L
73	CLOCK1	O	LC7822/LC7218	H/L
74	CE3	O	LC7218 CHIP ENABLE	H/L
75	DATA IN	I	LC7218 DATA IN	H/L
76	PWR RLY	O	POWER RELAY CONTROL	H
77	STBY RLY	O	STANDBY RELAY CONTROL	H
78	C/R RLY	O	CENTER/REAR RELAY CONTROL	H
79	FRONT RLY	O	FRONT RELAY CONTROL	H
80	TUNED	I	TUNED INPUT	L

ABBREVIATIONS

AMPLIFIER

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

TUNER

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultipleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect(DETector)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institut of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	SWitch : Short Wave(frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emiting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave(Frequency)	VR	Variable Resistor
		X'TAL	Crystal